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ABSTRACT

A program by the British Staff Development in Universities attempts to lessen the evident discrimination against women (both in their roles as students and staff) in British education. In an attempt to understand sex discrimination and the forms that it takes, six papers discuss: (1) the place of women in the changing pattern of further education; (2) women and the open university; (3) the economic benefits of education for women; (4) women academics in America; (5) women academics in Britain; and (6) the measures to combat discrimination against women in higher education. (Author/KE)

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Women in Higher Education

A Collection of Conference Papers

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HE 007 992

SDU

Staff Development in Universities Programme

2

Women in Higher Education

Papers from a Conference
held in London on 29 June 1973

SDU
Staff Development in Universities Programme

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The Conference was organised by Janine Wright and David Warren Piper. These papers were edited by the latter

INTRODUCTION

The brief for the Staff Development in Universities programme made specific reference to changes that universities might expect to undergo in the near future. One such change is in the proportion of women who are admitted as students and are employed as academic and administrative staff. The title of this collection is not without some irony since the papers which follow present clear evidence of the many forces which conspire to keep women from our higher education system.

The SDU brief also referred to the learning needs of senior staff arising from these expected changes. Although there may be senior members of higher education institutions who will need to learn new ways as the proportion of women they find among their peers grows, none of the activities of the SDU programme was addressed to those particular curative needs. Rather the programme was directed at lessening the evident discrimination against women in British education. A prerequisite for changing this unacceptable state of affairs is an appreciation that it exists and an understanding of the forms that it takes. It was as a contribution to that learning need that a conference on women in higher education was organised as part of the SDU programme and held in London on 29th June 1973. Since then a new imperative has developed. The present government is committed to legislating against sex discrimination covering among other things education and employment. The present conduct of the institutions detailed in this publication may soon become not only morally repugnant, but actually illegal.

The six papers that follow are those presented at that conference. The first examines the public sector, the next two are concerned with university students, the last three with women academics. They add up to a sad indictment of our bastions of liberty, doubly sad because up until now none have known, and few have questioned the extent to which we all (both sexes) in higher education habitually discriminate against half our fellow beings. The true indictment lies in statistical evidence, rather than in individual cases. These papers present detailed statistical analysis supported by close argument. They do not make easy reading; but they are compelling.

Eileen Byrne sets the scene by reviewing further education. Her paper is its own eloquent justification for starting a book on women in higher education by looking at where girl school-leavers go instead. By going on to analyse staffing of colleges in the public sector, she sets a theme to be picked up in the second half of the book, namely the rarity with which our sisters fill the high status positions.

One woman who does hold high academic office is Naomi McIntosh now Pro-Vice-Chancellor of the Open University, and at the time of the conference, Head of the Open University's Survey Research Department. That University, established to provide places for people with little or no opportunity of going to an ordinary university, made special efforts to recruit women students. Its success in extending the opportunities for women, whilst cheering, serves to underline the negligence of our other universities.

A national education system may be regarded as a tool of social justice capable of providing opportunities for sound mobility for the under-privileged. It may also be regarded as part of the national economic system in which public monies are invested in the production of a qualified work force. These two functions are generally discussed separately in texts on the education system. Maureen Woodhall shows how the constructs of an economic argument may themselves be socially discriminatory.

Oliver Fulton opens the review of the position of women academics by recounting the results of an investigation he conducted in America. That study preceded, and does much to set the parameters for, the British study reported by Tessa Blackstone. This important piece of detailed work establishes the statistical base from which future recruitment policies for university staff can grow.

The collection ends with a review of anti-discrimination legislation both here and in the United States. After the studied detachment of the preceding two papers, Margherita Rendel's feminism bites. The case having been made by the evidence in the preceding papers, the emphasis shifts from diagnosis to remedies, and the tone moves from academic analysis to a passionate committment to justice urging us to action.

The conference was arranged to help inform senior university staff. It was to be expected that a fair proportion of women academics already alive to the issue would attend; however to my intense disappointment, there were few men present, and not one of the senior members (all men) who regularly joined other parts of the SDU programme. Largely the loss was theirs; it was among the most agreeable of conferences the University of London Teaching Methods Unit has ever run. The quality of the papers the reader can judge for her or himself, but what cannot be experienced here is the enlivening atmosphere of the conference which fused passion with impartial enquiry; feminism with what I suppose can only be called 'siblinghood', as I and my male colleagues felt no rejection but rather a community of interest with all present.

This book will reach a wider audience than was at the conference for, along with the rest of the SDU report, each university will receive a copy. What manner of university is it which could remain insensitive to the evidence here presented? Surely not one which regarded itself as a civilising influence. Nor, come to that, one which is sensitive to the economic needs of our society, for these papers point to a state of affairs which not only perpetuates a grave injustice but one that robs the universities, and through them the community, of the full potential of half our population.

If this book goes some way towards drawing the attention of those in higher education to the poor example they set the society to whom they purport to give a lead, then that alone would justify the money and effort put into the whole of the SDU programme.

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THE PLACE OF WOMEN IN THE CHANGING PATTERN OF FURTHER EDUCATION

Eileen M Byrne

In a seminar principally concerned with women in education my concern is to identify and to highlight some aspects of the position of women in further as distinct from higher education; that is in non-degree courses in polytechnics, in colleges of further education, of art and design and in colleges of technology. The position of women is at once different and less favourable in the further education sector and my task is to ask why, and how those of us charged with responsibility for the education service propose to alter matters.

Most of the statistics which appear are drawn from the published statistics of the Department of Education and Science or from my own research project but I am indebted also to the ATTI for permission to quote from their latest revised proof edition of "Education, Training and Employment of Women and Girls" not yet published.

We need first to look at where the school leavers go? What courses do they follow? Where and at what level are the women staff? The fast rate of change in industry generally and in social attitudes lead us to predict even sharper changes in the future pattern of advanced or tertiary education in the next decade. In particular, the recent Government White Paper "Education: a framework for expansion" will affect both higher and further education. What then will be the next step in the context of the existing pattern?

At 18+, students go a variety of ways, treading different paths it seems, according to their sex.

Table 1

1970 School Leavers

	Male %	Female %
Universities	7·6	4·4
Colleges of (Teacher) Education	1·6	5·2
Polytechnics	1·9	1·1
Colleges of Further Education	8·1	12·5

The author's personal views here do not of course necessarily commit her present Authority.

Thus, the largest percentage of the tertiary education of women is in the last two sectors, with which this paper is principally concerned. It has been sometimes argued that the consistently lower take-up of university places by girls is more than offset by their higher take-up of further education. But this would only be valid if the girls were following *advanced* courses in further education colleges. It will be suggested later that they are not. It is also worth noting that the country's financial investment in the more directly vocational advanced and intermediate further education sector is only half for the academically inclined. When directly related to Table 1 above, Table 2 shows therefore that – for whatever social causes – the girls who predominate in colleges of education rather than in universities, and in lower level further education, rather than advanced further education, are receiving less direct financial educational investment than boys.

Table 2

	Cost per place 1970
	£
Universities	1024
Colleges of Education	698
Advanced Further Education	555
Other Further Education	216

Four things distinguish further from higher education, and these distinctions are important and germane to the philosophy which lies behind this seminar. First is the *breadth of span* of further education ranging from evening non-vocational classes (a potential stepping stone to GCE or to the Open University as well as to leisure) and pre-professional and foundation courses on the one hand, to part-time and full-time courses leading to diplomas relating to industrial or professional requirements – ONC, HNC, OND, and HND; and degree equivalent courses at polytechnics and colleges of technology. Degree courses in the latter two sectors under the aegis of the CNAA, often with a more vocational bias, are increasingly popular. Second, then, further education is often strongly *vocational*, often linked too with local and regional industry for whom colleges run special additional courses as well as day and block release. The division between education and training becomes more blurred. Further education has to pay some service to demand, where higher education does not. Third, it is not uncommon for from two-thirds to three-quarters of all further education students to be *part-time*, which crucially affects its accessibility to women students. Fourth, there is no standard level of *recruitment qualifications* like the three 'A' levels for higher education. Some courses are open to those with few or no formal qualifications, others demand a variety of combinations of 'O' and 'A' levels or their equivalent in ONC terms. On the whole, students in further education establishments are less able school leavers for whom they are therefore a lifeline of potential opportunity.

A fifth difference, despite the breadth of span however, is that an overwhelming majority of courses on offer in the further education sector, require minimum skills or qualifications in scientific, technical or mathematical rather than in arts subjects – which effectively weights the entry in favour of boys, because girls lack the right scientific and technical educational background.

The current statistics of education are misleading in that overall figures hide disturbing differentials of take-up of subjects by sex, and differentials between and within regions. But equal pay and equal opportunity, career prospects and introduction to higher education, are correlated highly with the individual and esoteric collections of pre-college educational qualifications and options of students. This relationship must be spelt out more sharply in future educational planning.

Some of us have suspected for a long time that within the 12·5% of girl leavers, few were studying for advanced courses or were set on a path of career training. Was it true that they mostly do low level secretarial courses, on-the-job basic training and short-term terminal courses? Substantially one can now say yes – girls are to be found mostly crouching over a typewriter or 'slaving over a hot stove' in catering, rather than following technological, economic or professional courses. One Regional Advisory Council for further education is currently surveying the pattern of women students in its region (the official statistics of the Department of Education and Science cannot readily answer such basic questions as what level of work are how many girls studying in each region?) and although its results are not yet fully public it is already clear that of the students following courses at A1 level (degree equivalent) five times as many were male as female. At A2 level (advanced diplomas) there were about six times as many male as female students. At B level (intermediate, often career-based courses), three times as many were male as female. Only at C and unclassified levels (low level courses, mostly for basic skills and usually shorter one-year courses) did women outnumber men – but even then only as much as twice as many, which does not compensate in proportion for the gross imbalances at higher levels. Informed opinion in the further education sector suggests this pattern is mirrored in other regions.

My own four-year research project into the rationale of resource allocation at secondary level has thrown up some interesting and disturbing correlations between subconscious discrimination in the allocation of building and curricular resources at the secondary stage and of 'role identification' by sex in preparing curricula, on the one hand; and subsequent school-leaver patterns and lower take-up by girls, pupils from rural areas and pupils from very small schools, on the other.

Different Subject Areas

The reader may be familiar with the statistics showing the predominance of boys taking scientific and technical subjects and the preponderance of girls following arts courses. What is less well known is the relationship between growth rates in *numbers* taking specific groups of subjects and growth rates in *proportions* taking those subjects, the sciences for example. And while one

fifth of 'O' level physicists are girls, only one-fifteenth of CSE entries for physics are from girls.

Table 3

Passes at 'O' and 'A' Level 1955-65

		Number passes		% change
		1955	1965	1955-65
'O' level				
Maths	B	52,832	103,417	95·7
	G	22,468	53,962	140·2
Physics	B	18,475	45,649	147·1
	G	2,477	8,686	250·7
'A' level				
Maths	B	12,391	35,451	186·1
	G	1,605	6,443	301·4
Physics	B	11,429	25,563	123·7
	G	1,642	4,385	167·1

In other words, although the growth rate for girls was much larger they were still way behind ten years later. There were still twice as many boys as girls doing 'O' level Maths after ten years and six times as many at 'A' level in 1965. (There were in fact 55% more boys than girls taking 'A' level at all in 1965, and 32% more in 1970, which is hardly likely to lead to equal take-up of higher education.) These school-leavers will have entered employment or further education within the last ten years, and it is therefore less surprising to see that in 1970, this pattern is repeated in the further education sector, for example:

Table 4

	M	W
HND Engineering/Technology	8,728	56
HND Science	2,532	467
Social Admin/Business Studies*	61,342	9,690

**Maths, Statistics and Economics are relevant here.*

On the other hand, more girls (4234) than boys (3726) took OND in business studies – a growth area.

Day Release

But the worst aspect must be, and remains, that of day release for part-time courses. If secondary education has not given equality of opportunity, and if girls are not to be found in large numbers on full-time advanced further education courses, surely they can later train on the job? Apparently not. The position appears to worsen. Only 10·1% of girls as against 38·8% of boys under 18 receive day release. But this hides, firstly, wider regional differentials (East Midlands 41·4% of boys and 9·6% of girls) and different rates of release by industry. The textile industry – a female dominated sector – releases only 3·8% of girls, the distributive trades (another female sector) only 2·0%, and insurance, banking and finance 2·7%. Most of those released are clerks and typists and not factory workers or operatives. The regional variations are even more disturbing. Look for example at this small Technical College in the North East:

Table 5

	M	W
Full-time	77	–
Block release	1004	3
Part-time day and evening	3159	10
Evening only	1017	42
Short courses	89	–
	5346	55

A rural Eastern College of Technology had only 8% women students overall. The national figures are inflated by the above-average of further education take-up and of day release in particular in the London and South Eastern regions.

And for over 18s, boys can fairly readily obtain financial support from industry and day release, to study for professional and managerial qualifications. Many building societies however still require their girls to follow technical college courses in office skills in their own (evening) hours, and exclude them from managerial training schemes.

This in effect amounts to *negative* man-power planning. Service industries like gas, public transport and electricity are 'screaming to a halt' in some regions for want of technicians. By the role-conditioning which at its crudest streams boys to higher level science and crafts and girls to lower level typing we are determining not only their future role in society but, for example, the diminishing standard of consumer services which are facing 'man-power' shortages.

Before moving on to speculate why these differential patterns described above occur, let us look at the position of women staff in further education.

The Staffing Differentials

This really starts from the top. Where are the women to lead? Even the local education authorities only have two women chief education officers and three women deputies out of over 160, and only four women education officers in England have designated senior responsibility for further education in the lea sector. Table 6 tells its own tale:

Table 6

	M	W
Polytechnic Principals	28	0
College of Further Education Principals	638	22
College of Teacher Education Principals	157	72
Agricultural College Principals	44	0
Secondary School Heads		
Boys'	879	0
Girls'	883	882
Mixed	994	53
Department of Education and Science		
Officials above Assistant Secretary	84	9

Within colleges of further education, there are very few senior women, partly because colleges of further education have been predominantly bases for engineering, building and scientific subjects, and partly because the departments traditionally regarded as 'women's subjects', such as commerce, catering, child care and needlecrafts, tend to run mostly lower level courses and have fewer full-time students, thus ranking lower on the Burnham Scales for heads of departments. Most women lecturers in further education establishments are therefore destined almost inexorably to be graded and paid at a lower level than their male colleagues. This is not unlinked with discrimination by industry – compulsory day release for the textile and distributive trades industries would double the student-loads of most 'women's subjects' departments overnight, leading to their potential upgrading. The grading aspect can be illustrated by the following quite typical examples:

Table 7

College A (Southern)

Department	*Burnham grading of head of department*	*Senior staff by sex*
engineering	V	4 principal and 12 senior lecturers – all male
management*	VI	8 principal and 24 senior lecturers, of whom 8 and 22 respectively were male
catering, fashion and home economics	IV	No principal and 2 senior lecturers, both women

**In the business studies courses at this college, girls are 'channelled' to a secretarial option for 12 hours weekly and boys to study maths, statistics and computing, a very common pattern.*

College B (Northern)

Department	*Burnham grading*	*Senior staff by sex*
mechanical engineering	IV	1 principal and 7 senior lecturers – all male
food, health and fashion	II	None – highest grading, lecturer II (female)

One Midland college of 6,000 students has only three women staff out of 132.

But until the inexorable pattern of lower take-up by girls of scientific and technical school and later college examinations is reversed, there cannot be a flow of suitably qualified women candidates for teaching posts in colleges and polytechnics other than for domestic and welfare subjects. This in turn means that women lecturers cannot acquire the experience of handling large departments of technical and advanced students, which would qualify them as likely candidates for posts of vice principal and principal. Who will break this vicious circle?

One might perhaps however speculate that where women are found at a senior level, awareness of the problems of the status of girls and women becomes highlighted more readily. What hope is there for the future? The future can only be changed by analysing the past. 'Role-conditioning' (girls become nurses, boys become doctors; girls become secretaries, boys become managers) starts at nursery school, is reinforced at primary school and is confirmed at 13+ when subject options are 'presented' to girls and to boys in the light of largely inherited assumptions by parents and teachers. By 14+, the future further and higher education pattern can irrevocably be set. One immediately hopeful step would be a national independent research-based enquiry into "The Education of Girls and the Further Education of Women" – this year – which would

look at school timetabling practices (especially in mixed schools) and correlations between curricular school patterns and destination of school leavers by level of course and subject options.

The Future

Education, society and technology are constantly changing. Demand for building and engineering is levelling out at a constant; but computer education, social work and social studies, business and management studies and electronics are probably growth areas.

In one region in 1972 less than 1·0% of the 38,000 technical students were female: 25% of those on scientific courses were female; but 58·31% of the business studies block were female (even here, however 37% of male students on business studies were following A1/A2 courses, but only 12% of the female students in the department). The most equal balance appears to be in colleges of art and design. Social studies has always been regarded as a women's field – but almost all male students on social studies courses in one region were following courses at A2 level, but only a quarter of the girls in these departments. The equal numbers overall therefore following social studies courses, hide the crucial difference of level of career-training. The growth areas need therefore to be monitored.

Circular 7/73 of the Department of Education and Science following the 1972 Education White Paper, proposes a 40% cut-back in teacher training (the major outlet for girls, see Table 1 above) a redistribution of those places in the non-university sector (notably to diversified colleges of education, polytechnics and colleges of technology) and a 7% increase in higher education overall, from the 1971 level of 15% to the 18+ age group to 22% of the age group by 1981.

But where are these girls going to go who cannot now train as teachers? The present pattern of take-up in advanced further and non-university higher education holds little hope of immediate absorption of substantially increased numbers of 18-year-old girls – with or without GCE 'A' levels (in 1970 still 32% more boys than girls took 'A' level). Girls who possess relevant advanced level sciences will continue to qualify for some of the 4·0% of university and 1·0% of polytechnic places now available to them. But the considerable majority of girls at 16+ and 18+ still take arts subjects. What plans have local education authorities to provide higher or advanced further education places in the non-university sector, which are not a straight expansion of the dominant engineering and technical courses now serving male-dominated industries? What training programmes are planned to expand the further education inspectorate in order to develop more courses attractive to women and to liberalise the restrictive attitudes of many technical industries and some heads of departments? Who will tackle the problem of creche and pre-school facilities to free the younger married women for advanced study?

T H Huxley spoke of an "educational ladder from the gutter to the university". Modern society has two. That for boys, has rungs at intervals, financed jointly by the state and by industry and commerce, giving craft, intermediate and

advanced education and training (from City and Guilds through HND to degree courses) for the future managers and technologists, technicians and foremen the country needs for economic survival. The further education ladder for girls has a strong rung at the base, labelled 'secretarial and child care', a good many missing rungs on the way up, with a slender rung at the top for the intellectual elite with strong wings and motivation who represent the 0·95% of girls following further education courses at A level.

Probably most of those who read this paper will have been fortunate enough, like myself, to have had a grammar-school, sixth form and university education and to have had our feet firmly planted at each rung on our ladder. My task, and that of my colleagues in the local authority education service, is to walk back down that ladder and find out precisely what social and educational restrictive practices and conditioning at each stage, may be creating environmental, psychological, social or practical barriers at the crucial steps, to prevent others joining us in our economic and educational freedom. It is their right. It is the country's economic future.

WOMEN AND THE OPEN UNIVERSITY

Naomi E McIntosh

Many people, as the Open University started its courses in 1971, feared that it might become a "haven for housebound Guardian housewives". Others viewed the expansion of educational opportunities for women as a priority somewhat akin to the problem of expanding the opportunities of that other notable majority group – the working class.

In the event only 27·0% of the first year's students were women and only 10·1% of all students were housewives.[1] This figure was very close to the overall proportion of women (28·2%) in conventional universities in 1970-71.[2] It compared unfavourably, however, with the intake of *new* undergraduates to universities in 1971 of whom 33·6% were female.[3]

Why should it have been assumed that a large number of women should wish to study part-time, as mature students, for a degree? Only 21·5% of all students studying part-time at universities in 1969-70 were women.[4] An alternative point of comparison is provided by looking at UGC figures for mature students. A report in "Where" (May 1973) commented that the predominance of men was even more marked among older students: less than a quarter of the over 25s at conventional universities in 1970 were women.[5] On the face of it the proportion of women at the OU was much what one might have expected from existing experience of conventional institutions. Only Birkbeck with 34·9% of women among its students in 1969-70 appeared to have been more successful.[6]

The assumption was based, reasonably, on a variety of factors:

- the fact that fewer girls go on to further and higher education, providing a greater reservoir of untapped ability
- changing family patterns leave women freer to return to work, or start work when the family grows up
- the demand for married women as one of the few additional sources of labour available in the country

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1 N E McIntosh, 1972. "Students of the Open University – their background and progress," The Open University, occasional paper

2 UCCA, 1971. "Statistical Supplement to the Ninth Report 1970-71" Universities Central Council on Admissions

3 UCCA, 1971. ibid

4 Central Statistical Office, 1972. "Facts in Focus", Penguin, London

5 "University places for older students" in *"Where"*, 80, 5/1973 pp 137/138

6 Birkbeck College annual reports

– the increasing consciousness of women's rights and awareness of the need of educational opportunities for women.

More positively, the structure of the Open University, utilising as it does home-based study as the core of its learning system is ideally suited to the needs of women who, house-bound to a greater or lesser degree during the main years of child rearing, nevertheless have some spare time which can be put to 'profitable' use. Among its relevant characteristics are the following:

– the normal constraints of regular attendance do not apply

– previous educational qualifications are not necessary

– study schedules can be devised to fit in with individual circumstances

– the whole degree does not have to be taken at one go. Credits can be added gradually over several years with time off for children, domestic crises etc.

Why then did so few women become OU students in its first year? The admissions procedure of the University is dealt with in detail elsewhere[7] and its effects on the characteristics of students have been shown.[8] The important point to note is that each stage of the process from 'knowing' about the University, writing for an application form, filling it in and returning it, being offered and deciding to accept a place affects the nature of the student population.

About half of the population now know that the Open University exists. We have monitored knowledge and awareness of the OU among the British population since the first courses commenced in 1971. Although the overall proportion of women knowing about the University has increased since then, the proportion relative to men is no greater.[9]

Table 1 Percentage knowing about the University in Great Britain

% knowing of the OU	Total	Sex		Social Class[10]			
		Male	Female	AB	C1	C2	DE
1971	31	37	26	66	50	21	17
1972	40	43	37	78	58	30	22
1973	44	47	42	78	61	38	26
1974	54	58	51	82	71	49	37

7 see particularly, "Report on the 1971 admissions cycle", April 1972. The Open University, mimeograph
8 N E McIntosh, 1972. op cit
9 N E McIntosh, 1973. "Knowledge and awareness of the Open University." The Open University, mimeograph
10 The 'social class' categories used are as defined by the Institute of Practitioners in Advertising

In addition, even those women who do 'know' about the University are less 'correctly' informed about it than their male counterparts. Respondents in each year have been presented with a set of statements and asked which of them they thought applied to the University. Table 2 shows a selection of these statements thought by respondents to apply to the University at the beginning of 1973.

The figures speak for themselves. It is no accident that in its second and third year, the University concentrated such advertising resources as it had on 'women' and 'the working class'. An advertisement of a student changing a nappy with a home experiment kit in the background obviously attracted attention but also caused some fury!

Table 2 Statements thought to apply to the OU (1973)

Statements	Total	Sex		Class[12]			
		Male	Female	AB	C1	C2	DE
	%	%	%	%	%	%	%
A second chance for adults	33	36	31	64	48	26	19
Uses radio and TV	31	34	29	62	46	24	17
Uses correspondence teaching	25	28	22	55	37	18	12
OU degree worth the same	22	24	21	45	31	18	11
No formal academic entry qualifications	17	20	15	31	26	13	10
Mainly used by the middle class	13	15	12	26	21	9	7
No personal contact between students/staff	10	12	8	18	14	9	5
Does not cost anything to study	6	7	6	9	10	4	4
All who claimed to know of the University in 1973	44	47	42	78	61	38	26

By January 1973 then, less than half the women in the country knew of the OU, and of those who did know about it only one third knew that no formal academic entry qualifications were needed for admission!

Once women actually apply, do they have an equal chance with men of being allocated a place? In theory the answer is yes. In practice the situation is more complicated. In its first year, the University admissions system, within its over-

riding 'first come-first served' principle, imposed controlling quotas for region, course choice and occupation. In 1971 occupation was not controlled separately for the two sexes, and occupational patterns for men and women are, of course, very different.

Another problem is that women tend to apply at a higher rate in those regions where applicant demand is already highest. The University attempts to balance applicant demand in any one region with the proportion of population that region represents, and women's chances therefore are somewhat reduced.

The most significant problem though stems from the student's choice of course, since the dominant admissions quota until now has been the ratio of arts-based to science-based courses and this has been set at 55:45. The male: female ratio in conventional universities varies widely between institutions, a ratio which relates not only to tradition, but to the courses provided. In 1969-70, among the students accepted by universities through UCCA, women comprised 56% of arts students, 35% of social science students, 27% of pure science students and 2% of engineering and technology students.[11]

"Where" (1973) also makes the point that older students do not follow the general pattern of choice.[12] Fewer mature students, for example, are studying science (13% of mature students compared with 34% of all entrants) and more are studying arts or social studies (34% of mature students compared with 24% of all entrants). The implication of this is that there may well be even more unsatisfied demand among mature students for places in arts and social science, for it is in these subjects that competition for places is most intense from conventional students. Since the numbers of female mature students are, as we have seen, proportionately low, the pattern of choice of older men must be significnatly different from younger men.

In their early years, the 'new' universities were thought to attract more women, but as Watts[13] commented, this was largely because they all started with abnormally high proportions of students in the arts and social sciences. Comparisons with polytechnics are not easy to make as the CNAA do not publish figures which separate out men and women by subject of degree. Pratt and Burgess show that both the number and proportion of women among full-time and sandwich students in polytechnics has increased. In 1965-66 there were 10,000 women on full time courses representing 30% of full time students; by 1968-9 there were nearly 14,000 representing 32% of the total".[14] This increase is presumably likely to be mainly in the social science area. But their figures show that the number of women on both part-time day and part-

11 UCCA, 1971. "Eighth Report 1969-70", Universities Central Council on Admissions

12 "Where", 5/1973, op cit

13 A G Watts, 1972. "Diversity and choice in higher education." Routledge and Kegan Paul. London

14 J Pratt and T Burgess, 1974. "Polytechnics: a Report." Pitmans. London

time evening courses has dropped, and their comment on this is worth noting: "One odd consequence of the changing pattern of enrolment has been that the polytechnic colleges continue to offer relatively few opportunities in higher education for women".

We need to look at the pattern of course choice of Open University students against the background of course choice both of conventional students and of mature students. Firstly, the overall proportion of women applying for places at the OU has increased in each of its four years of applications.

Table 3 Applications by sex

	1970	1971	1972	1973
Total applications = 100%	40,817	34,222	30,414	33,220
	%	%	%	%
Men	70·0	67·1	62·9	57·4
Women	30·0	32·9	37·1	42·6

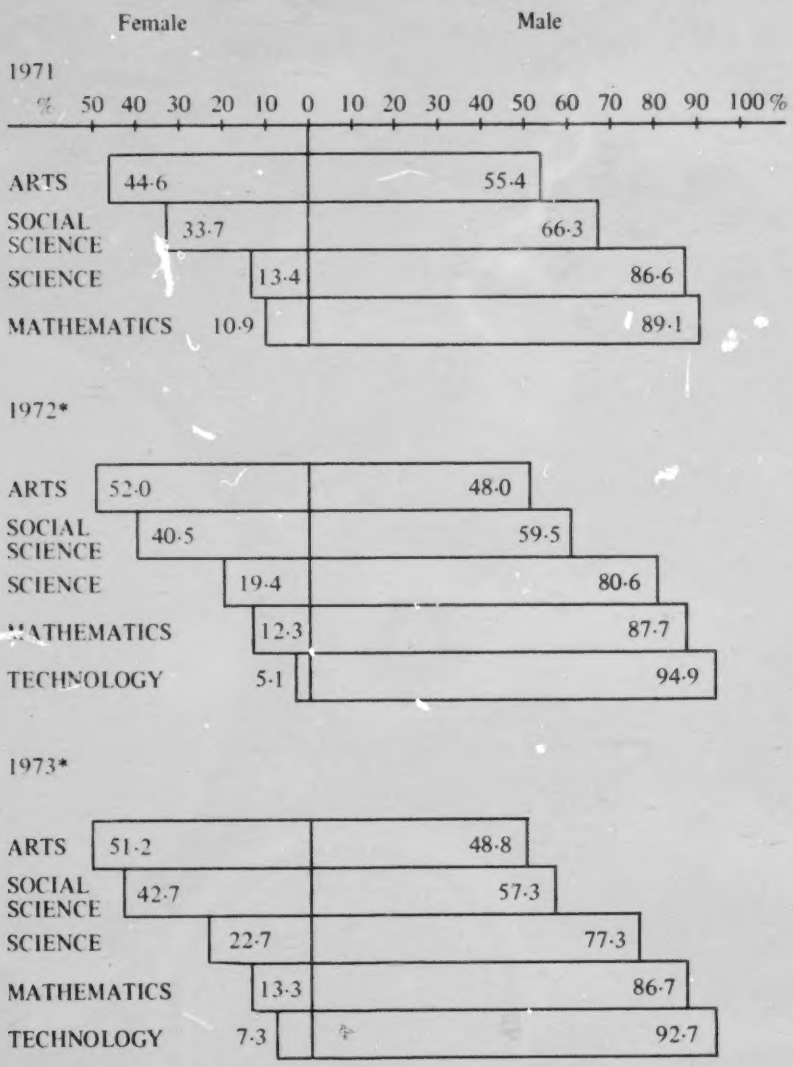
The figures for 1973 are the most encouraging, as they show not just an increase in the proportion of women, but also the highest number in absolute terms (13,920) of women applicants since the first year.

However, as indicated earlier, women do badly in the admissions process and even though 37·1% of women were among the applicants in 1972, only 34·5% of women got as far as provisional registration at the beginning of 1973. For 1973 applicants, the situation was marginally worse: 42·6% of applicants reduced to 37·8% of provisionally registered students. We cannot therefore, be sanguine about the situation. It is salutary to note that the student population at Birbeck shows a siminar increase in the proportion of women undergraduate students over a similar time period.

Table 4 Proportion of men and women undergraduate students at Birkbeck College

	1968-69	1969-70	1970-71	1971-72	1972-73
Total students = 100%	1295	1247	1254	1255	1223
	%	%	%	%	%
Men	67·0	65·1	66·5	63·6	59·1
Women	33·0	34·9	33·5	36·4	40·9

Figure 1 Sex of Students Registering for Foundation Courses 1971-3



*New and continuing students are included in these figures.

Birbeck in 1969-70 also had significantly more women studying science. 22·3% of their science students were women, compared with 50·5% of arts students.[15] Figure 1 shows the pattern of choice across foundation courses, over the past three years and shows that the pattern emerging is not so different from that which was quoted for conventional universities earlier in this paper.

Looking at individual disciplines within science shows differences in the proportion of women which appear similar to figures quoted by Watts[16] for conventional universities. He noted, from 1971 UCCA figures, that within the science group 44% of the students in biology, botany and zoology were women as against only 13% of the students in physics. It is difficult to make exact comparisons between UCCA and OU figures, because of the nature of the OU's credit structure and in particular because OU science courses are constructed in fractions of credits such that the "heads" and "tails" of courses are added together. Different tails may be added to different heads depending on the student's course choice. The range appears to be as great on OU courses as it is in conventional universities with biology at one end and physics at the other.

Table 5 shows the proportion of men and women registered for the main science courses and course combinations in 1973. The gradation is interesting:

Table 5 Sex of OU Science students on particular courses in 1973

		No. of students	Men %	Women %
S225	Comparative physiology + genetics and development	505	60·4	39·5
SDT286	Biological bases of behaviour	1381	62·5	37·4
S221	Comparative physiology + biochemistry	108	69·4	30·6
S223	Comparative physiology + environment	320	72·8	27·2
S233	Geology + environment	375	74·7	25·1
S241	Chemistry of carbon compounds + biochemistry	466	78·8	21·2
S232	Geology + geochemistry	186	83·9	16·1
S252	Structure, bonding & periodic laws + geochemistry	263	85·9	14·1
S234	Geology + geophysics	166	88·6	11·4
ST285	Solids, liquids and gases	346	95·4	4·6

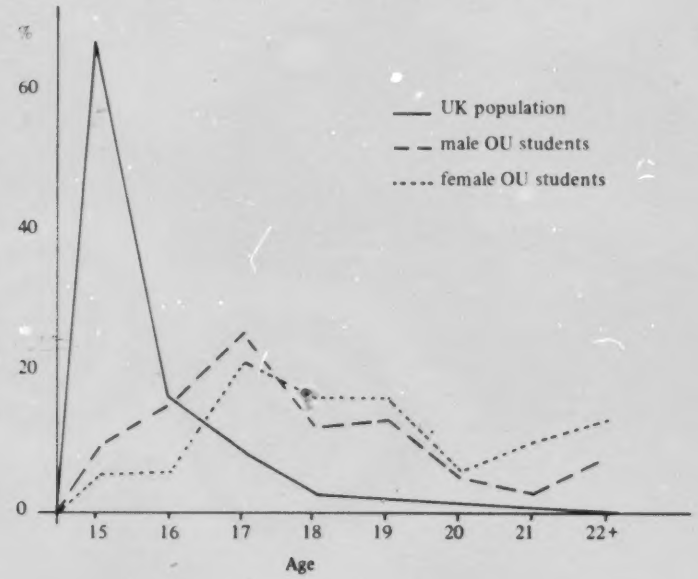
15 Birkbeck College, op cit

16 A G Watts, op cit

How do men and women compare with respect to their age, education and occupational background? A survey of the 1971 intake provides more detailed information on students' backgrounds than is normally collected automatically for all students.[17] The majority of students (around 70%) of both sexes were aged between twenty-five and forty-four as they started their studies. Not surprisingly given this age distribution, the majority of them were also married. There were proportionally more single female students than male, and single students of both sexes were to be found more in London than in any other region.

An analysis of terminal age of education showed a more important difference – significantly more women students had already undertaken a longer period of full-time education. Figure 2 shows the percentage of students having left school at a given age compared with figures for the UK population. More men had left at 15 or earlier (24% of men compared with 11% of women) while more women had stayed on until 20 or later (20% of men compared with 29% of women).

Figure 2 Percentage leaving school at given age (1971 intake)



17 N E McIntosh and J Calder, "Some Social and Educational Consequences of the Open University," a longitudinal study funded initially by the SSRC. Report to be published shortly

The advantage of the women is confirmed by looking at the predominant type of secondary school attended by students.

Table 6 Predominant type of secondary school attended (1971 intake)

	Men	Women
All respondents = 100%	2996 %	1179 %
Elementary only	7	4
Public/independent	7	12
Direct grant/voluntary aided	2	5
Grammar	58	59
Technical/commercial	11	5
Secondary modern	10	3
Comprehensive	1	1
Inadequate information/overseas	4	10

Their additional school education is reflected in the level of school exams passed: 54% of the women had, for example, gained one or more A level or equivalent compared with 42% of the men. It is at the level of post-school education that it becomes essential to look at the qualifications of men and women separately. Table 7 shows the range of post-school qualifications obtained by the 1971 cohort.

Table 7 Post-school qualifications of 1971 intake

	Men	Women
All respondents = 100%	2996 %	1179 %
ONC or OND	20	1
HNC or HND	16	1
Nursing qualifications	1	8
Teaching qualifications	38	45
Degree	4	3
Diploma or other educational qualifications	30	22
Graduate/corporate membership of professional institution	16	5
Other professional/vocational qualifications	14	11
None of these	19	28

Most women had teaching qualifications and on the other hand, more women had no post-school qualification at all. The men had clearly a more varied educational background and possessed numerically far more in the way of qualifications. Many of them have, for example, gone on to teaching having originally started on some other path.

Inevitably one turns from education to occupation. It is difficult to make straight comparisons for occupation, if only because a third of women students do not have a current occupation. Table 8 shows up the occupation groups in which women are particularly under-represented among OU students in comparison with the UK population.[18]

Table 8 Occupation of OU students and U.K. population compared (1971)

	Total	Not working	Armed Forces	Admin Managers	Education	Prof. Arts	Scnts./Engineers	Draftsmen, Lab Assts, Technicians	Skilled Trades/ Manual Workers	Clerical/ Office Staff	Sales Services
	%	%	%	%	%	%	%	%	%	%	%
OU students:											
Men	72	17	100	94	73	69	100	92	96	58	83
Women	28	83	–	6	26	31	–	8	4	42	17
	%	%	%	%	%	%	%	%	%	%	%
UK population:											
Men	47	10	97	93	44	53	98	87	83	37	40
Women	53	90	3	7	56	47	2	13	17	63	60

Women appear in significant numbers in only three occupational categories – teaching, the professions and arts and clerical and office workers, and even in these they do not match their share of the working population. The gaps are obvious. The most significant is perhaps that of the women involved in the distributive trades. This is not something that will be changed easily! Everything – hours of work, low salaries, no tradition of training – is against it.

Although it is not possible to make comparisons between current occupations, it is possible both to look at the student's first job, and also at the job of the fathers of OU students, as one might do if one was making comparisons with

18 This table is derived by amalgamating the Registrar General's Occupation Orders to accord with the occupational categories utilised by the OU.

conventional students.[19] The relative advantage of women over men is confirmed by looking at father's occupation. Students of both sexes show an unusual degree of inter-generational mobility, but whereas 50% of men students' fathers were manual workers, only 36% of women students' fathers came from that group. More women had fathers in administration, in the professions or in education. While only 14% of male students' fathers came from these categories, 26% of the fathers of female students did. Table 9 summarises the current job, first job and father's job of male and female students, using Open University occupational categories.

Table 9 Present job, first job and father's job of 1971 students

	Present occupation		First occupation		Fathers occupation	
All respondents = 100%	Men 2996 %	Women 1179 %	Men 2996 %	Women 1179 %	Men 2996 %	Women 1179 %
Housewives	0	32	0	0	0	0
Armed forces	2	0	3	1	3	3
Administrators, managers	8	1	1	1	4	7
Education	41	38	19	30	3	5
Professions & the arts	8	9	5	12	5	9
Qualified scientists and engineers	9	0	3	0	2	4
Technical personnel	10	2	12	7	1	1
Skilled manual workers	5	0				
Other manual workers	3	1	28	4	50	36
Communications and transport	1	0				
Clerical and office staff	6	11	21	39	7	7
Shop, personal service	5	3	6	4	15	15
Retired not working, never worked	1	2	0	2	3	4
Inadequately described, orphan	1	1	2	1	8	9

Perhaps even more surprising is the degree of intra-generational mobility shown. This is more difficult to assess for women, of course, as many are not currently working, but 39% of women and 21% of men started work in clerical and office jobs as compared with 11% and 6% currently in those occupations. Over a quarter

19 Such a comparison has been attempted by N E McIntosh and A Woodley in "The Open University and Second Chance Education," in *Paedagogica Europeaea* June 1974.

of all male students (28%) started their working life in some sort of manual occupation. The comparable figure for women was, not surprisingly, very low (4%). More women (30%) than men (19%) had gone straight into education as their first job. Similarly 58% of women currently in education had started in education as compared with 43% of men.

Motivation is a difficult concept, and one that is more talked about than understood. We did not attempt to measure it in quantitative terms, but asked students in an open-ended way why they had chosen to try and study with the Open University. A wide variety of reasons were given which related both to students' reasons for studying and to why they had chosen the Open University. Table 10 summarises the main reasons given.

Table 10 Main reasons for choosing to try and study with the OU

	total	men	women	women working	women not working
All respondents = 100%	4178	2996	1179	776	403
Reasons for studying	%	%	%	%	%
To widen my knowledge	37	36	40	41	38
To gain higher educational qualifications	32	33	28	31	20
To change jobs, get a new job	15	15	15	13	20
To help in present job	13	15	7	10	2
For choosing the OU					
No previous opportunity to study	12	16	16	16	15
Convenient because of domestic commitments	6	3	15	10	24

Vocational reasons are stronger among men than among women, but even so are lower than one might have anticipated. The desire for a degree is often, but by no means always, related to a job, and 36% of teachers – the highest group, gave this answer. Only one in five of the manual workers and clerical workers mentioned their desire to change jobs. Since OU students are extraordinarily committed to their studies many people have assumed that the strength of their motivation comes from concern for career prospects. This does not appear to be the case either for men or for women.

But men and women are under very different pressures in their studies and not surprisingly work pressures figure highest among men and domestic pressures among women. Not that these pressures do not also bear on the opposite sex, of course.

The majority of OU students are married, and at a stage in their life-cycle when they are likely to be experiencing maximum pressure both from their work and their family. Difficulties envisaged were more to do with coping with these pressures than with studying, although study problems, particularly problems of memory and concentration were of concern to older students of both sexes. Table 11 summarises the main difficulties envisaged.

Table 11 What students think will be the greatest difficulty in studying

	total	men	women	women working	women not working
All respondents = 100%	4178	2996	1179	776	403
	%	%	%	%	%
Main difficulties					
Other demands on time:					
work pressures	34	39	20	30	1
domestic demands	17	11	32	20	54
lack of time and energy	3	3	5	6	1
Total (demands on time)	54	52	56	56	56
Study problems:					
getting down to work	13	13	12	14	8
memory, concentration etc.	15	14	15	13	20
keeping up to schedule	7	8	6	7	4
Total (studying)	35	35	33	34	32

Once women have been admitted to the University, how do they fare? The first major hurdle is final registration. This is not an academic hurdle in that the university does not tell anyone they must withdraw. But the first year of a student's studies commences with a provisional registration period, a test-out time, with no obligation, during which the students can test-out the courses to see if they are suitable for them and to see if they can fit studying in with their other commitments. On payment of their final registration fee, they then become fully registered students. More women than men have gone on to final registration in each of the first three years of the OU's existence, but the gap appears to be narrowing.

Table 12 % of new students finally registering in each year

	1971	1972	1973
All Students	80·8	76·7	75·1
Men	79·5	75·3	74·2
Women	84·6	79·5	76·6

Having finally registered at a higher rate, women then persist inttheir studies at a higher rate than men. Not only is their persistence higher, but they gain credits at a higher rate than men. Table 13 shows the proportion of the 1971 cohort still registered with the university in 1972 and 1973.

Table 13 1971 intake – finally registered students

sex	1971	1972	1973
Male	14295 (100%)	11745 (82·2%)	9538 (66·7%)
Female	5286 (100%)	4441 (84·0%)	3816 (72·2%)
Total	19581 (100%)	16186 (82·7%)	13354 (68·2%)

At credit stage, women did better than men in all the foundation courses, as Table 14 shows for 1973.

Table 14 % gaining credits in foundation courses (1973)

	men	women
Humanities	77·4	83·8
Understanding Society	74·5	80·5
Technology	69·8	75·8
Science	66·5	73·6
Mathematics	60·3	67·5

The high percentage for science-based courses is particularly encouraging. Provided women have the courage to tackle maths and science they demonstrate clearly their ability to belie tradition and succeed. Some cynics commented that women ie housewives simply had more time to study. This is belied by Figure 3 which shows that the average time spent by women on their studies is not significantly different from men. Variations between courses and units are far more significant than variations between the sexes.

Figure 3 Hours spent on all types of study by unit (1971)

Indeed men spent longer on maths than women did!

By second level, the picture is more mixed and variations between faculties become more apparent. Women do slightly better in arts and appreciably better in maths but worse in many of the educational studies courses. Social science shows no consistency at all. Science also provides a more varied picture with women being more successful in the biological sciences and less successful in the physical sciences.

Table 15 selects examples of courses from each faculty and shows the percentage of registered students gaining credits in 1972 and 1973.

It is too early for us to know much about our graduates, as the majority of our first intake has not yet got to graduation stage. The first year (1972) was completely atypical since it produced only those graduates who had been granted at least two credit exemptions. The overwhelming majority of these were teachers. In 1973, although the first students were coming through with no credit exemptions, they were inevitably few in number, since to get a degree in three years from scratch meant studying for two full credits each year for three years — an almost superhuman task (which incidentally, 170 students achieved). However, 21% of all graduates in 1972 were women and by 1973 the figure had increased to 27%. We can expect this proportion to increase.

It is worth, finally, looking at the contribution that the OU is making in absolute terms to the extension of educational opportunities for women. Pratt and Burgess[20] quote figures for the total number of women students in full-time higher education in England and Wales which for 1970-71 were:

		%
Advanced further education	21,200	24·2
Universities	53,987	28·2
Teacher training	81,825	70·5

The number of women studying part-time in universities in 1969-70 was 5,300.[21]

The OU has not yet reached its plateau in terms of student numbers, but at the beginning of 1974 the number of women students was 14,896 (34·9% of the total). In comparison with existing provision this represents, at a stroke, a very significant extension of opportunity.

20 J Pratt and T Burgess, op cit

21 "Facts in Focus", op cit

Table 15 % of registered students gaining credits in 1972 and 1973*

	Course titles	1972		1973	
arts		Men	Women	Men	Women
A201	Renaissance and reformation	75·8	76·7	76·6	78·9
A202	The age of revolutions	70·7	72·3	74·1	77·5
A301	War and society	–	–	89·6	88·4
A302	The nineteenth-century novel and its legacy	–	–	89·2	91·0
A303	Problems of philosophy	–	–	79·7	87·8
maths					
M201	Linear mathematics	71·5	73·5	65·3	76·3
M202	Topics in pure mathematics	–	–	66·6	75·3
M251	An algorithmic approach to computing	–	–	65·1	77·1
educational studies					
E262	Language and learning	–	–	81·4	79·0
E281	Personality growth and learning	78·2	74·4	76·8	72·8
E283	The curriculum: context, design and development	76·0	76·6	75·6	77·0
E341	Methods of educational enquiry: an empirical approach	–	–	72·9	71·4
E352	Education, economy and politics	–	–	72·2	78·7
social sciences					
D203	Decision-making in Britain	77·8	76·5	73·8	76·1
D281	New trends in geography	77·0	73·2	78·7	79·4
D282	National income and economic policy	64·8	71·9	68·0	62·5
D283	The sociological perspective	67·2	68·7	68·0	66·8
science					
S252	Structure, bonding and periodic laws + geochemistry	72·2	65·0	73·5	64·9
S234	Geology + geophysics	–	–	76·9	68·4
S225	Comparative physiology + genetics & development	–	–	77·4	84·0
SDT286	Biological bases of behaviour	69·9	75·5	67·9	73·9

* Some courses were available for the first time in 1973.

THE ECONOMIC BENEFITS OF EDUCATION FOR WOMEN

Maureen Woodhall

In recent years economists have devoted a lot of attention to the concept of 'education as an investment,' and have attempted to measure the economic profitability of education, both from the standpoint of the individual student, and for society as a whole. There have also been a number of studies of the rate of return to investment in education, which have tried to measure the economic benefits of education and relate these to the costs of education, in order to compare education with other forms of private or social investment, or to compare the profitability of different types or levels of education. No one suggests that all the benefits of education can be included in this sort of calculation, or that public or private decisions about education should be based solely on considerations of economic costs and benefits, but nevettheless such considerations are very important, and should, I believe, have some influence on policy decisions regarding the allocation of resources in the education system. So I think that it is disturbing that most studies of the economic benefits of education have tended to concentrate almost exclusively on the effects of education on the productivity, or earnings, of men in the labour force, and have devoted very little attention to the economic benefits of women's education. To quote one American economist, Theodore Schultz, who helped to originate the great spate of work on what economists now call 'investment in human capital':

> "If one were to judge from the work that is being done, the conclusion would be that human capital is the unique property of the male population."[1]

I have therefore tried to apply the concept of investment in education to the education of women, in order to see whether education is as profitable for women as for men, and whether the state gets as great an economic return from expenditure on female education and training as from investment in men. I shall try to summarise my main conclusions, which are given in far more detail in two articles which will appear in the *International Review of Education* and *Higher Education*.[2]

On the whole, most studies of the economic benefits of education either ignore women, or suggest that the returns to their education are less than for

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1 T Schultz, 1970. "The Reckoning of Education as Human Capital" in *Education, Income and Human Capital (ed Lee Hansen)*, Columbia, New York University Press.

2 M Woodhall, 1973. "Investment in Women: A Reappraisal of the Concept of Human Capital," *International Review of Education* (May 1973); and "The Economic Returns to Investment in Women's Education "*Higher Education* (summer 1973)

men, because benefits are measured in terms of the extra earnings of educated workers, on the assumption that these reflect higher productivity. Since many women are not in the labour force, or are working part-time or in low-paid occupations, this means that women's average earnings are far below the average for male workers, so at first sight it would appear obvious that education is less profitable as an investment for women, if benefits are measured solely in terms of financial rewards. In fact it is not so obvious, if we examine the question more closely. For not only does education affect the earning power of women, and in all the countries for which we have evidence women with more education or higher qualifications earn more, on average, than women with minimum levels of education, but it also influences the probability of a woman working after marriage. It is a common fallacy to suppose that it is a waste of money to educate or train a girl, because she will give up her work after marriage or after she has a family. In Britain, Audrey Hunt's survey of women's employment[3] showed that 64% of women with some higher education were in the labour force, compared with only 52% of those who left school at 15, and if we look at women with professional qualifications, there is an even greater likelihood that they will be working. The proportion of women doctors, for example, who are working full-time or part-time, is on average 75% to 85%, and even among those with children under 5, two-thirds are working.[4] In America the trend is even more striking. In 1968 only 28 to 30% of women with only elementary schooling were in the labour force, whereas 70% of women with highest level university education were working.[5]

Another important factor is the influence of pay discrimination on women's earnings. Again, it seems obvious, at first sight, that the effect of this will be to reduce the economic returns to women's education by reducing female earnings, but what we need to look at is not women's earnings in relation to men's, but the earnings of highly educated women, compared with women with less education. The effect of education for women is to make it far more likely for them to enter occupations such as teaching, or the civil service, where equal pay is enforced, so that in fact the earnings differential of educated women may be greater than it is for men, even if average earnings are lower.

Nevertheless, the fact remains that women do earn much less, on average, than men, even when allowance is made for differences in length of work, and a large part of this difference is due to the occupational distribution of men and women. A recent American study showed that 73% of all women workers were in occupations which were predominantly female, and these occupations tended to have higher than average educational requirements, and lower than

3 A Hunt, 1968. "A Survey of Women's Employment," HMSO, London

4 "Royal Commission on Medical Education," 1968, p 144

5 Women's Bureau, 1969. "Handbook of Women Workers," p 205

average pay.[6] The recent PEP study "Sex, Career and Family" showed that in Britain the same stereotyping of occupations according to sex takes place, and if we compare three groups of graduate occupations, in terms of average income, we find that in the highest income category, which includes managers, doctors and lawyers, only 9% of the group are women; the second category, which includes university teachers, technologists etc is 26% female, and the third category, with the lowest incomes (including school teachers and social workers) is 48% female.[7]

So far, I have talked only of the effect of education on women who are in the labour force, but what of those who give up working? Are there no economic benefits for those who are housewives or mothers? The problem here is that traditionally no economic value is assigned to activities which are not paid. Economists have long recognised that this creates anomolies, and it was Pigon who pointed out that if a man marries his housekeeper he thereby reduces national income, since she will no longer receive wages although presumably she will continue to do the same work. There have been some attempts to measure the economic value of women's unpaid work, which suggest that this amounts to 25% or as much as 40% of the national income as conventionally measured. The question now is, does education affect the productivity of women doing unpaid work; as it appears to influence the productivity of workers in paid employment? One activity where it clearly does have some influence is in the quality of child care, and the influence of a mother's education on the future educational achievements of her children may be one of the most important indirect economic benefits of education. The Plowden Report, for example, demonstrated that parental attitudes had a great influence on children's performance in school, and one American study suggested that the mother's level of education had more influence on a child's subsequent educational performance than any other measure of family background.[8] Another American study showed that if the time that parents devoted to the informal education of their children was measured in terms of earnings forgone, then the time that graduate mothers devote to young children would equal more than 50% of the total costs of schooling for their children. All of this shows that it is essential to make some allowance for unpaid work when we measure the economic benefits of women's education.

In fact, no-one has yet tried to incorporate such indirect benefits into cost-benefit calculations, but if they were included, the difference between the rate of return to education for women and men would probably be very small, and in some cases the returns to women's education would actually be higher. Even when economic benefits are measured solely in terms of earnings, the difference between the rates of return for women and men is much less than some

6 V Oppenheimer, 1970, "The Female Labor Force in the US" p 100 Berkeley: Institute of International Studies

7 M Fogarty et al, 1971, "Sex, Career and Family," p 219 PEP London

8 J Boynton and E E McKenna, 1965, "Some Factors Associated with Age-grade placement of Migrant Children" *Rural Sociology*

economists have suggested. Evidence is available for nine countries, including Britain, on the relationship between the costs of women's education and its benefits, as conventionally measured. Out of fourteen cost-benefit calculations, the rate of return to secondary or higher education is lower for women than for men in 9 cases, and in 5 cases it is actually higher for women, because of the higher labour force participation of educated women and the fact that the costs of their education, including earnings forgone, is lower than the equivalent costs for men.[9] On average, the rates of return to women's education are about two percentage points lower than the returns for men; in Britain, for example, the most recent estimate of the returns to higher education suggests that the social rate of return is 8·9% for men and 6·4% for women. Part of this difference can be explained by differences in the occupational distribution of men and women. As we have seen, graduate women tend to be concentrated in relatively low-paid occupations. The remainder of the difference is largely due to the fact that many women work part-time, or interrupt their careers during the years when they are looking after young children, and these years (roughly between the ages of 25 and 35) are often crucial in terms of job advancement and on-the-job training, which will affect a women s earnings throughout her working life. Therefore, if allowance is made for the value of women's unpaid work in the home, the difference between the economic returns to education for women and for men is likely to disappear.

Nevertheless, the myth still persists that education and training is less profitable for women than for men, and this is reflected in the lower participation of girls in higher education, and particularly in the reluctance of many employers to provide training for women. This means that the skills and abilities of many women inside and outside the labour marker are being underutilised. A survey of OECD countries showed that in 1965 the proportion of girls in higher education ranged from 18 to 39%, apart from Finland, which has the very high proportion of 48%.[10] But the disparity between the sexes is even greater when we turn to vocational training. In Britain in 1970 42% of boys under 18 who entered the labour market took an apprenticeship of some kind, compared with 8% of girls of the same age. Even if she does receive higher education or some form of vocational training, a woman may be forced to work in a job which does not utilise her knowledge and skills to the full, because of the difficulty of getting part-time work, or because of the traditional hiring practices of employers. If better use was made of these skills, the economic returns to investment in education for women would be higher not only for individual women, but for society as a whole.

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9 See G Psaclaropoulos, 1973, "Returns to Education," Elsevier Publishing Company; and V Morris and A Ziderman, 1971 "The Economic Return on Investment in Education in England and Wales," *Economic Trends*, May

10 OECD, 1971, "Educational Expansion in OECD Countries Since 1950," OECD Paris

THE SOURCES OF "UNDER-ACHIEVEMENT": WOMEN ACADEMICS IN AMERICA

Oliver Fulton

To any reader of, say, the Times Higher Education Supplement, or to anyone with contacts with universities in the United States, it will not be news by now that these universities have come under severe pressure, not only from women's organisations, but also from the federal government – to remedy alleged sex discrimination. And if you take either of these sources of pressure seriously, then it is probably no surprise to you to hear that most American universities have, tacitly or openly, admitted their guilt and begun, at least, to think about what to do about it. What I want to do primarily today is to spell out, in its grisly detail, what discrimination against American women academics really amounted to – before the heat was on. There is an enormous wealth of data on the United States (some of which I have had access to), which makes it possible to pinpoint discrimination with some confidence. In this country, it is not yet possible to speak with such confidence: but the statistics which we can compare look remarkably similar, and, to put it mildly, I can't see any reason for complacency here. I hope you will keep the comparison in mind. Evidently, then, the title of this talk is partly ironic: as I hope to show you, one of the largest sources of 'under-achievement' is totally external; in important ways, women simply aren't permitted to "achieve" – whatever that means – as much as men.

Like their British counterparts, American women academics have seemed to be 'under-achievers' in a variety of respects. The most obvious, and notorious, respect is status; women tend to be concentrated in the lower ranks of the profession, and at lower status (and lower quality) institutions, and, arguably, in lower status subjects – and they get paid less. It's here that discrimination can most easily be tracked down, as I hope to show. The other kind of achievement, though, where women look different, lies in the performance of academic tasks and duties – chiefly research and teaching. When you quantify these (unsatisfactory though that may be) you find that, in America too, women do *much* less research – at least, they publish much less – although they do somewhat more teaching. Its much harder here to be sure of what's going on: as always, one has to try and sort out at least three possible factors. First, there is direct discrimination by their institutions, which can put more obstacles in women's ways than men's: second, there are the broader social and cultural constraints which discourage women from performing as well as men, and lead to their performance being underrated or ignored; and, third, there's women's own internalised doubts and conflicts. That's a slightly artificial separation, but I'd like you to keep it in mind: I'll return to it later on if there is time. Meanwhile, before discussing causation, let's look at the actual size of sex differences – and start with rank and status. (I ought to add that the figures I am giving you all date from a giant survey of American university teachers, financed by the Carnegie Commission on Higher Education, which was done in the spring of 1969. They can therefore be described as antediluvian – the flood of lawsuits, demonstrations, and enforcement

proceedings only built up after this time. I will talk a little later about how the world has changed, and Dr Rendel will be talking about it a lot more, I have no doubt: but these pre-enforcement figures are, I am afraid, likely to be a much better guide to the way this country is now.)

If you look at Table 1, you will see that 20% of college-level teachers in America are women – but they are concentrated lower down in the higher education system: the figure is 26% in 2 and 4 year colleges – roughly, those colleges which don't give postgraduate degrees: among these, it ranges from 29% at the very lowest quality 4 year colleges (which contain a fair number of single-sex religious institutions) to 16% at the elite 4 year liberal arts colleges (the ones everyone's heard of, like Swarthmore, Antioch, Dartmouth, Vassar). In the universities, however, the overall figure is 13% women. At the lowest quality universities, it's 16%: at the highest quality, it's as low as 10%. In Britain, as you've hust heard, it's 10%. On most measurements, British universities can best be compared with high and medium quality American universities, with perhaps a few high quality 4 year colleges thrown in: so, the proportion of women teachers isn't so very different in the two countries, but perhpas a bit higher in the US. (For various reasons I'm going to give statistics from now on simply for all American universities, but excluding 2- and 4-year colleges. Moreover, I'm not going to talk about subject differences – that's a whole topic for a paper in itself.)[1]

I am not going to spend much time on age differences, or changes over time: the general pattern is quite well known, I think, and is much the same in the two countries. There has been a large increase, of course, in the actual number of women teaching in universities, going along with enormous expansion in the size of the system in both countries; but in America at least, the increase has been less fast for women than for men; in proportional terms, there has been a decline in the proportion of women from a high point among those recruited in the 1920s down to a much lower level in the late fifties and early sixties; now it's starting to move up again. At present, there isn't any very marked disparity between the proportions of qualified women emerging from graduate schools in America and the proportions being taken on – *at some level* – in universities: indeed, looked at as a whole, women academics, there as here, tend to be slightly less well qualified than men. This means that, short of a drastic change in standards of recruitment, any large increase in the overall proportion of women teachers is going to depend on an increase in the numbers entering and going through graduate schools. What I'm more concerned with, though, is what happens to women once they've succeeded in getting a university post of some sort. And the first thing, as I've shown you, is that women get jobs at lower quality institutions – and more so than their slightly lower qualifications would lead one to expect.

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1 In general, these too look remarkably like British differences. See Tessa Blackstone and Oliver Fulton, Spring 1974, "Sex Differences in Subjects and Research among Academics," *Higher Education*

Table 1 (a) Sex Distributions, by Type and Quality of Institution (%) and (b) Type and Quality of Institution, by Sex (%)

Institution Type	Quality	Men		Women		Total (N)
		(a)	(b)	(a)	(b)	
University	High I	90	14	10	7	100% (55100)
University	Medium II	87	20	13	12	100% (79120)
University	Low III	84	16	16	13	100% (68979)
All Universities	(I – III)	87	50	13	32	100% (203199)
4-Year College	High IV	84	6	16	4	100% (24907)
4-Year College	Medium V	78	11	22	12	100% (47876)
4-Year College	Low VI	71	20	29	33	100% (97757)
2-Year College	All VII	74	13	26	19	100% (63060)
All Colleges	(IV – VII)	74	50	26	68	100% (233600)
All Institutions	(I – VII)	80	100%	20	100%	100% (436799)
Total		350154		86645		

Source: 27,000 sample.

I said just now that women and men got taken on in similar proportions "at some level": what becomes clear, however, if you look at Table 2, is that the levels vary quite sharply. The highest proportion of women is found at the irregular ranks of instructor and lecturer, posts which are either temporary or ad-hoc. Assistant professors occupy the bottom rung of the regular career ladder; they need a doctorate, but they don't have tenure; and women are slightly better represented among them than among the profession as a whole: but in the tenured ranks of associate and full professor, they are pretty thin on the ground. When I tell you that one-third of men academics are full professors, compared with 10% of women; one-quarter of men are associate professors, compared with 17% of women; 28% of men and 31% of women are assistant professors; which leaves 14% of men and 41% of the women in the other ranks, you can see how sharp are the differences — and remember that women, on average, are older than their male colleagues.

Table 2 Sex Distribution (Percentage of Women) by Academic Rank and Quality/Type of Institution

Rank	Universities			All Universities	4- & 2-year Colleges	All Institutions
	High	Medium	Low			
Professor	4	5	6	5	14	9
Associate Professor	7	10	10	10	21	15
Assistant Professor	11	15	18	15	26	21
Instructor	20	31	36	31	35	34
Lecturer	26	32	21	27	39	32
All Others	26	20	24	23	24	23
All Ranks	10	13	16	13	26	20

Source: 27,000 sample.

Lastly, what about salary differences? In Britain, most university teachers occupy the grade of Lecturer, with salaries roughly tied to age, though with some flexibility. In the United States, however, the three main career grades of professor are roughly equal in size (so that it's common to be promoted to a higher rank much younger); salaries are not so closely tied to age, and there is no national body to set salary standards between institutions. In other words, there is a great deal more flexibility; and this emerges when you compare women's and men's salaries. Of all university teachers the men earned on average $14,800 in 1969: the women $10,600. (The difference may be a little inflated, because probably more women than men work part-time.) That's over $4,000 difference per annum; looked at slightly differently, 62% of women earned less than $10,000, compared with 29% of men. At the other extreme, 9% of men and 1% of women earned over $20,000. The differences are larger still at the best universities. If you take age into account, the difference gets sharper, especially at the top end: the average male university

teacher in his fifties earns $6,000, or half as much again as the average woman of the same age.

Since I have just told you that women are much less likely to be promoted, this may seem fairly predictable: but, if you look at men and women of the same age and the same rank, you still find huge differences: among full professors (that is the most successful women and men), the difference is still almost $4,000 once they reach their fifties, and well over $3,000 when they are younger. At lower ranks, the difference is smaller – somewhere around $1,500 in most cases; and when I looked within particular subject areas, I occasionally found an exception to the general rule: in some subjects, women associate professors of over fifty were getting paid as much or even slightly more on average than men in the same age, rank and subject group. This was most clearly the case in natural science subjects, where women are fewest, and find it hardest to get promoted. By the time he is fifty, any self-respecting male natural scientist ought to have reached full professor rank, and those left as associate professor, are probably regarded by their institutions as relative failures. For women, however, it's pretty much the top of the tree; one hopes that a slightly higher salary than their rather second-rate male colleagues at the same rank is compensation for not reaching the top.

Now, is this a matter of sheer discrimination, or, as you may well have been wondering, is it more a matter of women being less successful in their jobs, or less competitive than men? As I mentioned earlier on, there's no question that in some respects, women seem to be under-achieving, and especially where it counts, in publication rates. If you look at Table 3, you can see this very clearly. Since there are obviously wide differences between one subject and another, I have given these figures broken down by broad subject fields. The general picture is very clear. In most subjects, women have published not much more than half as many articles as men in the course of their working lives, and are currently publishing at a similarly reduced rate. And there are a lot more women than men who call themselves inactive in research – although research is, according to most academic contracts, one of the requirements of career academic jobs, and, as everyone knows, it's the chief, if not the only way, to get promotion. Does this lower activity account for women's lower rank and salary? One problem is that there's an element of circularity involved: women are, for whatever reason, concentrated in the lower ranks, and these ranks – especially instructors – are expected to teach much more, and are given little or no time for research. In fact, I looked to see how men and women of the same rank compared in the amount of research they did; and the differences were quite a bit reduced. But they still exist, though it should be clear that women's lower research activity is balanced by the higher number of hours they spend teaching; nobody can accuse them of idleness. As in Britain, it's partly a matter of preference: when we asked directly what was the most important part of academics' jobs, and where their chief interests lay, women tended to be more interested in teaching, and men relatively more interested in research. But just because there are these preferences, that's not to say there is no discrimination involved; I tried comparing men and women's preferences with how much teaching and research they actually did: and found

Table 3 Numbers of Publications Produced – By Sex and Subject Taught (universities only)

	Subject Field															
	Physical Science		Social Science		New professions		Education		Humanities		Fine Arts		All others		All respondents	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Average number of articles published (ever)	13.3	6.8	8.5	4.6	9.4	2.8	7.0	3.6	6.5	1.9	3.7	2.0	9.7	5.7	9.3	3.4
Average number of publications in the last two years	3.9	2.0	3.2	1.8	3.0	0.9	2.6	1.3	2.4	1.0	1.5	0.8	3.0	1.7	3.0	1.2
Research Activity (%)																
Inactive, no recent publication	7	27	6	15	17	47	19	38	8	36	31	43	12	33	12	38
Active, no recent publication	11	14	16	20	14	18	14	18	26	29	23	26	14	14	16	20
Few recent publications	52	49	56	57	49	32	49	38	51	31	38	28	53	43	51	37
Many recent publications	30	10	22	8	21	3	18	6	14	4	8	3	21	10	21	5
Total	100%	100%	100%	100%	101%	100%	100%	100%	99%	100%	100%	100%	100%	100%	100%	100%

Source: special (universities) sex-weighted sample.

Smallest unweighted N is 422 (Fine Arts, female).

that for every level of interest in teaching or research, whether you take the most or the least enthusiastic teachers, women tend actually to do more teaching, and to publish less. It looks as if women get defined by the general characteristic of their sex; and universities may exploit this preference, and fail to give them as much time for research as men, regardless of their personal interest.

But I wouldn't deny that there is, on average, a real difference in interests, and in behaviour. Given that it exists, is it enough to explain sex differences in attainment of high rank and high salary? There is no question, in American universities, of the broad validity of the phrase "publish or perish"; though to be precise, the phrase should be "publish and flourish". Even at elite universities, there are places for people who don't publish, and just do a lot of teaching; but they are in certain subjects only, and at lower ranks. Non-publishers don't literally perish from the system. But promotion and high salary go to people who publish research, in quantity as well as of good quality. You are welcome to argue that this is unsatisfactory; I'd agree, I think; in all sorts of ways it distorts what universities should be about. But it isn't very easy to devise any other system. Teaching is a private activity (private, that is, as far as one's colleagues are concerned), and research a public one, by and large; and decisions on promotion are almost bound to be based on what is visible and measurable. In any case, it's research that brings status and kudos to American universities, and not teaching. A lot of largely wasted effort has gone to trying to devise ways of rewarding good teachers, and I don't really see it happening on a large scale. In this state of affairs, women can be expected to do badly.

Now, does this explain the remarkable differences in rank and salary that we found earlier on? The answer, if you look at Table 4, is quite definitely no. You'll see that there are very sharp differences between the sexes, even when you control for activity and publication of research as well as for age. Apart from a few cases where men and women are under thirty, there's no category in which men are not considerably better off than women (leaving aside the natural 'ceiling' reached in tenure). Not only in the low activity categories, where you might expect it, but even among men and women where publication rates are very high, differences of 30% or more in the proportion holding full professorships, and of $4,000, $5,000 or even $6,000 in salary, can be found in the forties and fifties. In the very productive group (on the right side of the table) men's salaries almost double between their late twenties and their early fifties; women's salaries increase by half – by their late fifties. At their highest salary level (in the late fifties) women researchers earn less than men twenty years their junior: and as many men achieve a full professorship in their late forties as do women, finally, in their sixties. And the points I have just been making about the most prolific researchers apply, almost word for word, to the other three groups, even though their rate of promotion is so much lower. I said just now, by the way, that women do more teaching than men; you will be interested to hear that the more teaching you do, the less you get paid, whatever sex you are: the mechanism is presumably that it simply distracts you from doing research, which is rewarded. The influence of research on promotion is enormous, as I've been saying: but so, and independently, is the influence of sex.

Table 4 Access to Rewards, by Sex, Age and Research Activity (universities only)

(a) % who are full professors

	Research Activity									
	Inactive, no recent public'n		Active, no recent public'n		Few recent public'n		Many recent public'n		All	
Age	M	F	M	F	M	F	M	F	M	F
61 & over	53	20	77	30	84	59	93	74	77	39
56 – 60	39	16	58	24	74	37	93	66	71	29
51 – 55	46	10	51	10	70	23	80	47	66	18
46 – 50	19	4	32	4	57	21	74	41	54	13
41 – 45	13	3	10	6	38	7	60	27	37	7
36 – 40	2	0	4	0	15	5	27	9	15	3
31 – 35	0	0	1	0	2	0	6	7	3	–
26 – 30	0	0	0	0	–	0	1	0	–	0
under 26	0	0	0	0	0	0	*	*	0	0
All Ages	20	5	16	5	33	16	49	33	32	10

(b) % who are tenured

61 & over	79	76	88	70	90	86	89	85	86	80
55 – 60	76	66	85	64	87	73	91	87	85	70
51 – 55	74	47	76	44	86	54	88	73	83	51
46 – 50	69	35	71	31	76	56	88	55	78	44
41 – 45	56	25	47	31	72	40	79	57	69	35
36 – 40	30	20	30	16	53	27	64	32	51	23
31 – 35	14	12	10	7	23	13	32	29	22	12
26 – 30	9	4	4	6	5	4	15	2 *	6	4
under 26	8	6	13	4	0	4	*	*	7	5
All Ages	49	28	36	24	56	41	67	53	54	34

(c) Average Salary ($000's)

61 & over	14.1	11.2	16.1	12.3	18.1	14.3	21.3	17.0	17.4	12.8
56 – 60	14.1	10.8	15.5	11.7	18.8	13.7	21.2	17.2	18.2	12.4
51 – 55	15.7	10.2	14.9	11.4	17.8	12.7	21.5	15.6	18.1	11.8
46 – 50	13.4	10.3	14.3	10.5	17.5	13.1	20.7	15.4	17.4	11.9
41 – 45	12.9	9.5	12.8	9.8	16.0	12.3	19.2	15.8	16.0	11.2
36 – 40	10.6	9.0	11.7	9.8	14.2	11.5	17.5	13.6	14.3	10.5
31 – 35	9.7	8.4	10.6	9.2	12.4	10.2	14.3	12.5	12.2	9.4
26 – 30	8.2	7.8	9.2	8.2	10.6	9.1	11.7	11.2	10.0	8.3
under 26	6.8	7.0	7.1	7.2	8.2	7.0	*	*	7.4	7.1
All Ages	12.0	9.2	11.9	9.7	15.0	11.9	18.2	15.0	14.8	10.6

Source: special (sex-weighted) sample. ** N (unweighted) < 20.*

Smallest unweighted N is 21 (male, under 26, few recent publications, and female, 26 - 30, many recent publications).

Now, that table seems to me to amount to a *prima facie* case of discrimination. There are all sorts of things which can be done to check it, and I have tried all the ones I can think of. Let me tell you about a few of them. Women are less well qualified, and you need a PhD in American universities to get tenure, or become a professor. If you re-run that table for people with PhDs only, it looks pretty much the same. It's possible, though I don't quite see how, that it might be contaminated by subject differences: if you look within broad subject groups, it's still the same for each. Or again, women are concentrated in lower quality universities, where pay scales are lower. (So are research publication rates.) Maybe this contributes to the apparent inequality? In fact, if you look at different university levels, you find that differences on average get worse, not better; and the leading universities have the most glaring inequality. (And, by the way, if you look at salary rates within the different ranks, that is to see whether people who finally get promoted get the same pay as their male colleagues if they publish as much, the answer is still no. Women full professors, however productive, whatever the subject they are in, still don't get paid as much on average as their male counterparts.) How about mobility? Married women, or, I suppose, single women with dependents, may not be able to make strategic moves to improve their jobs as easily as men. This isn't something you can tease out very far with this kind of large scale survey, but women seem to move more or less as often as men; and, there is no obvious tendency for women who move more often, or who stay put too long, to do better or worse than others.

What about ambition, or dedication? There was a question in our questionnaire which read: "I tend to subordinate all aspects of my life to work" – respondents could agree or disagree on a four point scale. You can argue, if you want, about what exactly this might mean; but if you take it as a crude measure of dedication, it turns out that men and women look remarkably alike. The difference between single men and single women was negligible (about half of each agreed); slightly fewer married men agreed; and about one-third of married women agreed. When I looked to see if this affected chances of promotion and high salary, it made a bit of difference by itself, but it didn't explain away the sex difference at all, and when I added it in to publications, and activity in research its effect was pretty much negligible. In other words, I see no way of getting round the reality of discrimination by universities against women. I want to talk about how this could happen; but, first, let me just emphasise what I have been doing.

What I have done, is to divide the academic population into various levels of dedication and achievement, and then to look at each of these levels independently. This means that you can separate out from all the common mass, if you like to dismiss them like that, of the moderately serious, moderately productive, and moderately highly motivated, the few women who completely conform to the norm of the most dedicated academic. Those are the people who appear on the right-hand side of the table I have just shown you; and if there is anybody who ought to do as well out of the system as their male colleagues, it's they. The rest may be, in some way, that I haven't been able to measure, only half serious; they may be married with small children, or in other ways unable to devote as much time and energy to their jobs as are men; they may, if you like, think it unfeminine to do so, or they may simply have been discouraged by the kind of discrimination that they have experienced in their lives and in the society around them. But I have

excluded all of them and looked at the others, the most dedicated, hard-working and productive women. Compared with similar men, even they get a very bad deal.

That's the outline of a pretty discreditable story for American universities. There is less data, as yet, about British universities, and there are fewer women, so that one can't break them down into as many categories as I have been able to with American academics; but allowing for the fact that salaries are much more tied to age, it looks suspiciously as if the same sort of thing has been happening here. And I'd like to point out in passing, though Margherita Rendel will be discussing it at length, that this kind of research points out the strength of American equal rights legislation, which the British legislation so far proposed doesn't look like matching. In the United States, employing institutions, like universities, are required to provide statistics on an institution-wide level (and even within smaller areas) if the federal authorities request them, to demonstrate *on a statistical basis* that women and men are treated equally. It's not necessary for an individual woman to demonstrate that she has personally been discriminated against – something that is obviously much harder to do, considering the subjective criteria which enter into promotion decisions. As far as I know at the moment, it's only the latter kind of legislation which we are likely to get here.

I've demonstrated to my own satisfaction – and I hope to yours – that there has been a real and sizeable degree of discrimination against women in American universities. If doubts remain, I can remind you that these universities, both explicitly and tacitly, in their sudden flurry of 'discovering' deserving women, have admitted as much. Let me revert to the title of this talk – "The Sources of Under-Achievement". What can we say about the causes, or rather the mechanisms of discrimination, and of differential achievement by sex? Tessa Blackstone has pointed out that universities are not the kind of place where you would expect to find discrimination. With certain reservations, which we can all probably fill in, that seems to me to be a plausible statement; and I have to confess that I was surprised by what I found in the research I have just been reporting to you; I really had seen the matter much more in terms of under-motivation, or under-achievement, and less in terms of genuine aspirations being simply thwarted, as they clearly are. But how does this come about? Until about 3 years ago, when people began to get self-conscious about it, I suppose a certain mild male chauvinism wasn't entirely taboo on American campuses. But I don't think they could fairly be described as overtly and crassly piggy. On the other hand, since it's clearly the case that the most ambitious women get a raw deal along with all the others, it's no good blaming the whole thing on women's modesty, or lack of assertiveness. Other people – mostly women with first hand experience – have written much better than I can about the kind of mechanism by which women get hindered, slighted, or ignored in their academic work in ways that men don't. One of the best examples of this is Cynthia Epstein's book "Woman's Place" which is full of illuminating insights into the subtleties of the day-to-day experience of women academics; and another recent example I have just come across is a short pamphlet put out by the American Sociological Association called "The Status of Women in Sociology". They are both quite clear, I

think, that however much women may have absorbed and internalised certain norms about how they should behave, and however much, therefore, we have to wait for larger societal changes in the way in which women think about themselves (though these may not be as long coming as pessimists may think), there are a whole variety of constraints on women's successful careers, for which women can in no way be held responsible.

I hope you won't deduce from what I've been saying, and the way I've used the "publish or perish" criterion as a test of whether universities discriminate, that that's the only test I can imagine, or that I think that if American universities conformed with existing legislation, that would be enough. On the contrary, the kind of discrimination I have just documented is only the crudest, just the tip of the iceberg — which happens to be easily measureable, objectionable to everyone, and correctable by legislation. I believe that a lot of what's called 'under-achievement' (implying an internal, psychological cause) is in fact produced by discriminatory treatment of the sexes — and that's why I've used quotation marks around the word. If I could show this directly, I would; but the evidence isn't easy to come by in this kind of study. Still, in order to suggest the subleties of what goes on, let me leave you with some findings to ponder which are both ambiguous, and unlike the situation in Britain. They concern the differences between married and single men and women in their achievement of high rank and high salaries. It turns out that there is not just a difference between the sexes, but a steady gradient: starting with the most successful, it runs first married men, then single men, then single women, and last, married women. You find it not only when you look at these groups as a whole, but also when you take research publication rates into account, in the way I did in Table 4. (I should add that research publication rates themselves aren't affected by one's marital status: married women publish about the same amount as single women, but quite a bit less than married men or single men, who also publish at equal rates.) The rank and salary differences, however, are quite striking, and very consistent, in all age groups.

There are a lot of possible explanations. The dullest is an economic one: married men, it's argued, see themselves, and are seen, as needing most money; married women least; and single men and women would come somewhere in between. And so they are proportionately aggressive in demanding salaries appropriate to their family responsibilities. Well, maybe; aggression in bargaining is certainly rewarded in the American system in a way that it isn't always here, and universities probably to take perceived need into account in fixing rates of pay. But these marital status differences really ought to be visible much more in salaries than in access to promotion and tenure, whereas in fact they are equally visible throughout. So I don't think that's quite good enough. If you discount that explanation, there are others, which all have to do with family roles, and the incompatibility (so-called) of wife-and-motherhood with a successful career. But you can look at this in different ways. One way — the conventional one — is to say that married women absorb and internalise conventional norms so much that they don't devote themselves so thoroughly to their careers. In some ways, this may be true — for instance, as I suggested earlier, married women may not be as willing as men to move and change jobs. But the fact that married women publish as much as single women makes it clear that this again is only a very partial

explanation. Then there's what I'll call the Jessie Bernard thesis – that women don't so much internalise conventional norms, as are exploited by them: marriage, she says, is bad for women and good for men; you would expect to find a gradient like this, because women are distracted by their other commitments, including emotionally and practically supporting and running around for their husbands. Again, there is something in this, I am sure; but you'd still expect to find differences in productivity between men and women. I think that the facts force one back again to an explanation couched in terms of discrimination: since married women and single women publish as much, but are promoted differently, it really looks as if it is a matter of definition imposed on them from the outside: married women are simply defined as less serious, regardless of the objective facts about them. That seems to me to fit the facts of the case best. (Of course, it would be silly to suggest that this kind of definition – or for that matter the basic perception of women in society – is simply an external force: it's quite obvious that this kind of perception tends to be absorbed, and accepted as at least partially justified, by its objects (or victims). The truth is that it's impossible, and would be totally artificial, to try to separate out the various factors and their effects; I've really been trying to suggest that the whole process is much more complicated than one might think at first sight; to think that there is a limited amount of clear, detectable discrimination which has to be abolished, whereas everything else is a 'real' difference between the sexes, is wholly mistaken.)

The mere levelling up of salaries for people with equivalent research, or even teaching, achievements, isn't going to do all that much to change the situation. Indeed, I've seen the latest raw figures from the United States for the current academic year, which suggest that though the gap has closed a bit, it's nowhere near enough, and this after a year and a half of the most intense pressure from the Federal Government and the women's movement. I don't think further legislative action, even when combined with provisions like proper child-care and maternity – and paternity – leave, is going by itself to make very much difference in the United States: a thorough-going reappraisal of women's roles, and of men's perception of them, is beginning, and this has to work its way through universities like all other societal institutions. But in this country legislation would be a very important start both as a symbol of change and in relieving the real injustice which almost certainly exists. My guess is that it's needed pretty badly: in the meantime, British universities can reasonably be asked to anticipate the legislation and to look very hard at the position of the women they employ.

WOMEN ACADEMICS IN BRITAIN[1]

Tessa Blackstone

"I would by no means wish a daughter of mine to be a progeny of learning; I don't think so much learning becomes a young woman." (Mrs Malaprop)

What contribution do women make to university teaching? This paper sets out to show the nature of this contribution, and to raise a few questions about the causes of the small role that women play in this profession and to consider some of its implications for women in top jobs in the higher professions in general. A number of observations can be made about university teaching which are apposite to considering the position of women within it. First, university teaching is a profession where recruitment and promotion are highly dependent on merit, and as such, less dependent on ascribed characteristics such as social class or sex than some other occupations. Secondly, university teaching is a profession allowing the individual more freedom than almost any other to organise his work as he thinks fit. Thirdly, there is more of a sense of vocation attached to the pursuit of learning and the transmission of knowledge to others, than in many alternative careers for graduates, particularly those in industry and commerce. These observations lead to the expectation that women will be found in relatively large numbers in university teaching, because there is no discrimination against them; they may combine the job with the roles of wife and mother easily; it appeals to the sense of public service and vocation, which circumstantial evidence suggests many career orientated women graduates have. The small number of women in the profession, and the even smaller number in senior positions suggests this expectation is quite wrong.

Ten per cent of all academics are women, 9 per cent of teachers and 23 per cent of researchers; between 1 and 2 per cent of professors are women,[2] and 12 per cent of lecturers; 2 per cent of university applied scientists are women, and 14 per cent of those in the humanities. There are proportionately more women at the Scottish universities than in other university groups and less in the New Universities and the ex-CAT's. Unlike the proportion of women undergraduates, the proportion of women university teachers did not grow during the sixties. However the proportion of married women did grow, yet

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1 This article is a slightly revised and shortened version of Chapter 19 of the "*Academic Labour Market, Essays on Social and Economic Aspects of the University Teaching Profession*," by Gareth Williams, Tessa Blackstone and David Metcalfe, 1973, Elsevier, The Hague

2 Sommerkorn (1967) noted that there were less than 30 women professors in 1962-63. In December 1972 there were 43. Thus although the profession has almost doubled in size since that date, the number of women professors has not increased so rapidly. Sommerkorn suggests that the sample of women academics she interviewed were being realistic when regarding promotion to readership level as equally likely as for men but the chance of getting a chair as virtually non-existent.

still only 42 per cent of women academics are married compared with over 80 per cent of the men. Nearly a third of these women have no children, and very few of those who are mothers have more than one or two children. Women academics are more likely to have had fathers with middle class occupations than their male colleagues. Similar findings emerge from American studies (see Simon, Clark & Galway 1967, Bernard 1964) and a more recent comparative analysis (Blackstone & Fulton 1974) reveals remarkable similarities between Britain and America with respect to the position of women in universities.

Some of the above differences in background and current status between men and women have also been found in the case of other occupational groups. An analysis of women directors undertaken by Fogarty *et al* (1971) also found that a higher proportion of women had middle class origins, and had stayed longer at school; they were much more likely to be on the boards of *small* companies and their incomes were considerably lower; they were less likely to be married. The picture for the administrative class of the civil service also bears some resemblance to what we have described. Women constitute 8 per cent of the administrative class as a whole, but 25 per cent of assistant principals. In 1969 Civil Service Manpower Statistics showed that there were no Permanent Secretaries (one has been appointed since then), 2 Deputy Secretaries and 9 Under Secretaries, that is about 3 per cent of top jobs are held by women.

Before going on to consider the contribution of women academics a little more information about their educational and work experience is of interest. The intellectual nurseries of the future 'blue-stocking' are little different to those of their male colleagues, although the independent schools were responsible for educating slightly fewer of the women academics than the men, in spite of the fact that a higher proportion of women came from middle class backgrounds. When we examine where women university teachers received their higher education we find that there are some notable differences between the men and women. Thus whilst 24 per cent of the men had been to Oxford and Cambridge, this was true of 16 per cent of the women; 20 per cent of the men had been to Old Civics compared with 14 per cent of the women. These figures are reversed with respect to the University of London, 13 per cent of the men having graduated from there and 20 per cent of the women. Similarly the Scottish universities account for the higher education of 17 per cent of women academics but only 10 per cent of the men.[3] These figures are clearly related to the proportion of women graduating from the various types of university. Thus in 1961/2 12 per cent of Oxford and Cambridge graduates were women, 29 per cent of London graduates, 28 per cent of Scottish graduates and 25 per cent of those in the Old Civic Universities.[4] However it is even more appropriate to

3 There is a discrepancy between these figures and those given in Table 1.1 because the percentages in the text are proportions of all women university teachers, whereas in Table 1.1, those without degrees or those educated in foreign universities have been excluded.

4 See Robbins Report, Vol. II(A), p 25. These are the most recent figures available, but since a high proportion of today's university teachers were recruited in the mid-sixties, and would have graduated in the early sixties, it is quite legitimate to use them as a guide.

Table 1.1 University type

	Oxford & Cambridge	London	Scotland	Wales	Old Civic	Young Civic	Total
University type where women academics gained 1st degree	21	25	22	5	19	8	100
Proportion of women graduates gaining 1st degree in each university type	8	23	19	8	43		100

Sources: *Robbins, Appendix II(A)*

Mail survey.

Note: Those obtaining degrees in foreign universities or British institutions other than the main categories listed here and those without degrees have been excluded, and the proportion repercentaged. They constitute 23 per cent of the total (10 per cent in foreign universities, 8 per cent without a first degree, and 5 per cent in other institutions such as the Colleges of Advanced Technology).

Table 1.2 Qualifications by sex

(a) Class of first degree by sex

	First	II(i) or undivided 2nd	Other	Not Applicable	Total	Number
Men	40	34	21	5	100	2371
Women	35	32	25	7	100	231
All	39	34	22	5	100	2602

(b) Highest degree by sex

	Ph.D.[1]	Master's[2]	Postgrad. Cert. or Diploma	None of these	Total	Number
Men	54 (46)	14 (13)	9	23 (41)	100	2371
Women	40 (40)	15 (15)	13	32 (45)	100	231
All	53 (–)	14 (–)	9	24 (–)	100	2602

Sources: Mail survey.
Figures in brackets for 1964 from Halsey and Trow.

1 Excluding honorary doctorates.
2 Excluding Oxbridge and Scotland.

compare the university background of women academics with the contribution of the various university groups to the total number of women graduates. Table 1.1 shows clearly the degree to which Oxbridge graduates are over-represented in the profession and the women graduates from the redbrick universities under represented. Indeed the size of the contribution of the provincial universities to women's higher education may be related to the low proportion of women recruited into the profession, since these universities do not make as large a contribution as would be expected from their size, to the education of academics in general. London and the Scottish universities contribute to the education of women *academics* to the same degree as they contribute to the share of women *graduates*.

So far the figures given refer to women with research posts as well as those with teaching posts. In the rest of this paper the researchers will be excluded in order to facilitate comparisons between men and women in the profession: 28 per cent of women academics are in research grades compared with 11 per cent of the men, and researchers differ from teachers in a number of key respects, notably age and qualifications. This is especially true of women, many of whom have short term research posts after graduating and as such are only temporary members of the profession.

At first glance the qualifications that women academics obtained whilst studying at their university seem less good than those obtained by their male colleagues. Table 1.2 shows that the proportion of women with firsts is slightly lower than the proportion of men, 35 per cent compared to 40 per cent. Twenty-one per cent of the women had neither a first, 2(i) or undivided second. The differences between men and women with respect to the possession of a higher degree are more marked: substantially fewer women have a PhD (40 per cent) compared with men (54 per cent), although there are no differences in the proportions with Masters and rather more women have a postgraduate certificate or diploma. Whether these differences are still apparent when the different proportions of women in the various faculties is taken into account is investigated later. The table also shows that the proportion of women with higher degrees has remained constant since 1964, whereas the proportion of men with higher degrees, notably PhDs has increased somewhat.

One quite reasonable assumption, that women academics may be less experienced than men with respect to the numbers of years they have been in the job appears to be invalid. There was a slightly higher proportion of women (28 per cent) than men (22 per cent) who had been in the profession for over 15 years, 23 per cent of women, compared with 18 per cent of men. Thus there is no evidence that men have generally spent much longer in the profession than women. Women have, however, less experience of a wide variety of universities: 71 per cent of them had worked in one university only compared with 58 per cent of the men. Both Halsey and Trow (1971) and Sommerkorn (1967) also found a difference in this respect, but not as large as the one we have found, because in each case the women in their samples had moved around more. Thus 62 per cent and 64 per cent respectively had been employed in one university only. Similarly fewer women in the present study had had experience of jobs other than university

teaching. Half the women but nearly two thirds of the men had spent some time in another occupation.

This is the background against which we have to try to understand and explain the special position of women in the universities with respect to the much lower proportion in senior posts and the small number in the profession as a whole. The overall proportions are smaller than those working in some of the other liberal professions but higher than in others. Thus according to the 1961 census (Summary Tables, General Register Office) and to evidence quoted in Fogarty *et al* (1971), the proportion of women in medicine is 16 per cent, in dentistry 7 per cent, among barristers 4 per cent, in architecture 2 per cent and among managers in large establishments is only 12 per cent. Where women have management positions they "tend to be in support roles rather than in line or general management" (PEP, 1967) and only 2·5 per cent of the Institute of Directors are women. There are many professions where less than 10 per cent are women including accountancy, engineering, veterinary surgery, surveying, the law (solicitors as well as barristers). According to Arreger (1966), the vast majority of women graduates are in school teaching (55 per cent). A further 14 per cent are teaching in universities or other post school institutions, and 16 per cent are in medicine and 4 per cent in social work. Graduate women are thus concentrated in very few professions, most of whose members are working in the public sector.

As in many other professions then, women in university teaching are in a small minority occupying the mere junior positions. Why is this? Is there a case for referring the universities to the Board against Sex Discrimination if and when such an institution is created? Is there any discrimination against women at the time of appointing them, which explains their small numbers in the profession or is there any discrimination against women in the promoting process, which explains their even smaller numbers in senior positions? Thus do women spend longer in junior posts than men? Do women who are promoted need better qualifications or experience than their male colleagues to achieve this? The first hypothesis to test is that women suffer from discrimination in this profession.[5]

In order to do this it will be necessary to investigate other measures of discrimination such as differentials in the salaries of men and women, which cannot be explained by age, grade or subject differences. It will also be necessary to examine the relative productivity of men and women, which might explain differences in rank and pay. Various assumptions may be made about factors which affect the research output of university women. It might be argued that it is likely to be high because the women have been so rigorously selected, in other words to have got so far as women they have to be especially able. Yet this phenomenon might be counteracted by the fact

5 There is evidence that women tend to be discriminated against when applying for a wide range of occupations. Replies to advertisements to fill many different kinds of posts, asking whether they were open to women produced either a negative or doubtful response in a high proportion of 150 cases tested in a study done in the mid-sixties (see Rendel M, 1964)

that a substantial minority – two out of five – are married, some of whom have children and that their domestic responsibilities restrict their research output. Although universities conventionally consider productivity in terms of publications, how productive their academic staff are, in terms of their teaching responsibilities' is equally important. What is more it may well influence their research output. Thus dedicated teachers may publish less than those who take their teaching responsibilities less seriously. American evidence suggests that women in the universities are strongly orientated towards teaching. The second hypothesis which is tested in this paper is that this is also the case among British women university teachers. How far any relative failure to publish may be attributed to this will be examined.

It is possible that professional women are less ambitious, less highly motivated, have lower aspirations and less drive than their male colleagues. One indication that this is true of women university students has been discovered in the research of the Edinburgh-Manchester Universities project (see Jones, CL, MacDonald, KM and McPherson, AF, 1971). Second year students at these universities were asked whether they intended to stay on at university after taking their first degree, and to study for a doctorate. They found that "sex has a large effect on this kind of academic aspiration, women tending to under-aspire". This was still true when subject was controlled; although pure scientists were much more likely to aspire to do a PhD, the effect of subject was less strong than that of sex. As the authors point out selection and sponsorship at the undergraduate stage may also be important. It is possible that this favours males in that men in senior posts are more likely to sponsor their male students. Thus although there is no formal quota on the number of women taking up postgraduate places to study for higher degrees, as exists in many American universities, informal pressures, in the form of less encouragement to women may be operating. These are likely to further reduce the aspirations of women. The overall proportion of British postgraduate students who were women in 1961/2 was 22 per cent compared to 28 per cent of British undergraduates. The figure for postgraduates is as high as this, because of the high proportion taking postgraduate certificates in education to train as teachers. If education is excluded women represented only 14 per cent of home postgraduates, and 13 per cent of all full-time postgraduates. Although the overall number of women doing full-time postgraduate courses has more than doubled from 3,750 in 1961/2 to 7,800 in 1969/70, the proportion of women has actually gone down slightly. Thus in 1969/70 they constituted 21 per cent of the total and 13 per cent when education is excluded. This is even more remarkable in the light of the slight increase in the proportion of women undergraduates. The overall proportion has gone up from 25% in 1961/2 to 28% in 1969/70. When the overseas students are excluded this proportion goes up from 28 per cent in 1961/2 to 30 per cent in 1969/70.

In one study on graduate school entrants in the USA the authors discovered that "In general fewer women than men *plan* on either graduate or professional education . . . a woman's decision about advanced education is perhaps more difficult than a man's and is generally made much later than a man's. Women who enter graduate school are more apt to have been influenced by experiences at school (university) than the men who enter" (Gropper and Fitzpatrick

1959, p 57). In this context it is also noteworthy that another American study found that almost twice as many women (60 per cent) as men (32 per cent) have become academics because they were offered a job in the profession (Eckert and Stecklein 1961). This was also found to be true of British female academics (Sommerkorn 1967). She found that only 37 per cent of her sample had decided to apply for a university job on their own; 52 per cent had become academics as a result of initiative taken by others, either through the encouragement of a professor or the direct offer of a post. Many of her respondents commented on the importance of fortunate circumstances and mentioned the lack of a definite decision on their part. They had 'drifted' into the profession by chance or accident. As the author comments it was not possible to distinguish how far this was the result of diffidence or indecision characteristic of women or how far it was a special characteristic of university teaching, because of the lack of comparable data about men. However, Sommerkorn's evidence suggests that women may be more inclined to depend on sponsorship and encouragement than men, either because of lack of confidence or drive or both. It may also be related to what has been described as "the problem of showing initiative without being thought aggressive and unfeminine" (Fogarty, Allen, Allen & Walters 1971). The same authors found that "there is evidence from a number of studies that women perform very well in jobs into which they have been pitchforked, although, left to their own devices, they might never have considered themselves capable of doing them." This finding was confirmed in their own study of women in senior posts in two large companies.

Although we have no direct information on the relative ambition of men and women in this study, there are a number of indirect ways of examining the differences between men and women, which may provide indications of a greater propensity to sit back and accept lower status among the women. For example greater acceptance of a higher teaching load or low pay, and less mobility with fewer applications to go elsewhere may occur among women academics. It is possible that by actually becoming a university teacher they perceive their status as being high enough, since it is indeed so rare for women, and do not strive or compete for more than this. Others may have lower expectations of them, which further reduces their potential, via the operation of the self-fufilling prophecy principle. The following statement from a woman civil servant, quoted in Fogarty *et al* (1971), expresses this perfectly "there are not the same pressures on a woman to get on and get up she is much less likely to have dependents and since people still fall flat on their faces at the sight of a woman doing even moderately well, she doesn't need success to feed her *amour propre* as men do. Many single women of about 40-plus, on an Assistant Secretary's salary, are doing very nicely thanks and see no need to press on to ulcer territory." This is probably equally true of the moderately successful women university teacher, high up in the lecturer grade or as a senior lecturer. This seems likely to be especially true of the married women, and differences between married and unmarried women, and women with children and those who are childless will also be examined.

Are women discriminated against in the universities? It is as difficult to establish for certain that there has been discrimination against an individual

on grounds of sex as it is on grounds of race, particularly in the field of employment. There are many other factors which the agent accused of discrimination may point to as a reason for giving a job to or promoting a man rather than a woman other than the sex of the candidates. The less quantifiable and objective these factors the harder it is to prove discrimination. As Fogarty *et al.* (1971) state with respect to administrative class civil servants "the career experience of men and women administrators may well differ because the two groups differ in abilities and/or aspirations or they may differ because men and women are treated differently by the environment. It is very difficult to gather completely objective information on either of these issues". (p 273). Jessie Bernard's study of academic women in the USA is perhaps the best example of the difficulties of demonstrating sex discrimination in the universities (Bernard, J 1964). She suggests that one set of figures from which to begin are the international comparisons of the proportion of women in the profession. She produces the following figures: USSR 35 per cent; Germany, Austria, Switzerland approximately 10 per cent[6]; France 8 per cent and Italy 6 per cent; and the USA 19 per cent or 22 per cent, depending on the definition used.[7] However, international comparisons of this kind cannot do much more than suggest that matters could be very different; direct comparisons are not meaningful unless we have information about variables such as the proportion of graduate women in the labour force.[8] In the case of the USA Bernard suggests that women are not in fact under represented in the academic profession when this factor is taken into account. Thus in 1962 the

6 Sommerkorn (1967) claims that in Germany the proportion of women is 6 per cent and only 2 per cent of those with 'habilitation'. She also quotes studies which find strong opposition to women academics on principle among men in the profession in Germany.

7 The first figure is for core academic personnel only, the second figure includes those in peripheral posts.

8 Variations in the structure of higher education must also be taken into account. Thus in the United States a much wider group of people are defined as university teachers than in Britain. For example the equivalent of lecturers in colleges of education are defined as academics. This partly explains the higher proportion of women in the profession in the United States. There are in the US considerable differences in the distribution of men and women between the various types of institution as the following figures quoted from Bernard (1964) show.

Percentages

	Universities	Liberal Arts Colleges	Teachers Colleges	Professional Schools	Junior Colleges	Total
Men	55	21	5	11	8	100
Women	32	38	12	4	14	100

proportion of those in the labour force with five or more years of college education in America who were women was 22 per cent. Thus women are represented in academic jobs in exactly the same proportion as in the minimally qualified labour force. It would be far fetched to suggest that all the 31 per cent of women with these qualifications who are not in the labour force have been excluded from it as a result of discrimination against women. Bernard also carried out an analysis of awards for graduate study, which shows that the proportion of awards to women is as high as the proportion who apply for them.[9]

There is no similar evidence available for Britain, but there are figures available on the proportion of women graduates in the labour force. Men outnumber women by nearly 3½ to 1 in the qualified population (that is those with degrees or equivalent qualifications).[10] More than three-quarters of *all* who were qualified were economically active, but the proportion of women who were economically active was 59 per cent and the proportion of married women was 50 per cent. This compares with 48 per cent and 37 per cent of the population of women over 15 as a whole who are economically active. Thus women with qualifications are more likely to be at work than those without; unfortunately the above percentages include those with certain qualifications below degree level, as the difference in the propensity to work would probably be even greater between the general population and graduates only. It is possible to derive from these figures the proportion of qualified people in the labour force who are women. It is 34 per cent. However when this is restricted to those with degrees or equivalent qualifications it falls to 16 per cent, 7 per cent of whom are married.[11] This shows clearly how unrealistic it would be to expect 50 per cent of university teachers to be women at the present time, but it does show too that the universities are under-employers of women graduates, in that only 10 per cent of academics are women, compared with 16 per cent of employed graduates who are women.

Reviewing the literature on qualifications and productivity of men and women academics Bernard found that women university teachers are both less well qualified and less productive than their male colleagues. However she suggests that even when qualifications and productivity are taken into account, the academic rank of women is lower than that of men. But she is not able to resolve whether this is a function of discrimination or non-competitiveness among women. Another study (Brown D G, 1967) suggests that with the exception of some of the top institutions discrimination does not take place, although in a number of respects his arguments can be challenged. He finds

9 It could be argued that the proportion of women getting awards should be higher, because they have already been so drastically selected and self-selected so that only the most able and highly motivated remain.

10 See CSO, Studies in Official Statistics No 18, "Qualified Manpower in Great Britain, the 1966 Census of Population"

11 See "Sample Census 1966, Qualified Manpower Tables," table 4

that whereas 29 per cent of instructors and 21 per cent of assistant professors are women, 15 per cent of associate professors and 9 per cent of full professors are women. Having ranked institutions according to quality he also finds that the top 10 per cent recruit a much smaller proportion of women (9 per cent) than those in the bottom 10 per cent, where the proportion is 21 per cent. The average income of the women is also lower, both among the new recruits from the top 20 per cent of institutions and those who have been in the profession as a whole for some years. The women were however less well qualified, only 25 per cent having PhDs compared to 50 per cent of the men. It seems likely that this ratio would be different for the new recruits from the top institutions, although the author does not comment on whether this is so. The women also spent more time on teaching, had published less and were less likely to have been to one of the top graduate schools. The argument that Brown develops is that women *are* treated unequally, their academic rank is lower, they have heavier teaching loads, and are at less prestigious schools, but that this is due to differentiation not discrimination. In other words they are paid less because they produce less. He fails to note in this context that they teach more, which might be interpreted as an indication of higher productivity, although he does suggest that because they emphasize teaching they are of more economic value to the poorer schools. However he does admit that the top institutions do discriminate against women even when their lower productivity is taken into account.[12] He then qualifies this by saying that women prefer less prestigious and less high paying schools, but produces no evidence to support it. He claims that married women will not consider a job outside commuting distance from their husband's jobs. He also claims that many women may feel work loads of a major university are not compatible with their dual roles; and that they may not be professionally committed. The fact that they spend more time teaching indicates that they want to teach and want jobs in institutions where research is not emphasized. All this is possible but it is equally conceivable that they are working in such institutions because it is difficult for them to get jobs elsewhere. The same explanation is as valid for the high proportion of women teaching in women's colleges rather than that they prefer it, which is again put forward. Brown concludes that "much of the apparent discrimination against women appears to be self-imposed". He may be correct about this, but the claim is unsupported by adequate evidence; he is begging the question.

The findings from this study are not inconsistent with this American evidence, but it would be wrong to interpret them in this way without more information on the aspirations and opportunities of the women. We have already mentioned overall differences in qualifications and experience. There are also differences

12 This finding is based on the premise that each university takes a certain proportion of high, low and non-publishers. Empirical evidence is available for the proportions for different quality institutions. The author also collected evidence on the proportions of women in the three publishing categories. He finds that if universities were drawing men and women randomly from the three groups they would recruit more women at top institutions than is the case.

in the amount published as Table 1.3 shows: 77 per cent of the women had not published any books compared with 57 per cent of the men, whereas 15 per cent of the men had published three or more books, this was true of only 6 per cent of the women. With respect to articles the differences are if anything larger: thus 44 per cent of the women had published no articles in the last two years, this was true of half as many of the men (23 per cent).

Table 1.3 Number of publications by sex in 1964 and 1970*

	Books				Articles published in the last 2 years	
	Men		Women		Men	Women
	1970	1964	1970	1964		
None	57	65	77	70	23	44
1 or 2	28	25	17	23	28	23
3 5	10	} 10	5	} 8	27	21
6 10	4		1		15	8
More than 10	1				7	3
Total	100	100	100	100	100	100
Number.	2,407	1,294	242	109	2,407	242

Source: *Halsey and Trow, Interview survey*

Note: **Excluding research staff in 1970.*

The table also shows that the differences have become greater since 1964: there has been a decline in the proportion of men who have written no books and an increase in the proportion of women. Sommerkorn (1967) found that her sample of women had a rather higher level of publication than Halsey and Trow's sample (1971), which provides further evidence that the publication rate of women has deteriorated. This can be partly explained by the younger average age of women in the later survey than in either of the earlier surveys. Whereas Sommerkorn found that women were on average older, which Robbins also found, this study has found a higher proportion of women under thirty. However the fact is plain that since expansion there has been no improvement in the calibre of women with respect to their qualifications, and a decline in their calibre with respect to publications.

This is an important piece of evidence with some potential for explaining the low proportion of women in senior posts in British universities, since publication is the main criterion for promotion. If women are much less productive in terms of research than men, then what at first sight may seem

like discrimination against them can perhaps be discounted. The following section examines this issue in more detail. It begins by considering whether salary differentials can be explained by differences in age or grade. It goes on to consider whether levels of promotion can be explained by differences in productivity and qualifications after having taken into account subject differences and differences in the number of years spent as a university teacher. Lastly it considers whether differences in levels of recruitment of men and women can be explained by the fact that there are fewer applicants or that the calibre of the female applicants is lower. If it is impossible to explain the differences in any of these ways, it indicates considerable support for our initial hypothesis that women are discriminated against. If, however, all these explanations are validated, our hypothesis is disproved as a general rule, although it would not mean that individual instances of discrimination never occur.

Women academics are less well paid than their male colleagues. The mean salary for all women was £2,067 at the time of the survey compared with £2,754 for men. However these figures include the lower paid research groups, who account for far more of the women than the men. It is necessary to exclude them, as well as to take into account grade, and more importantly, age differences. This is done in Tables 1.4 and 1.5. They show that the salary differences between men and women for *teaching* staff cannot be explained by the greater youth of the women or by their concentration in the lower grades. Table 1.4 shows that within each grade the women are less well off. This is not surprising for the lecturer group where women are younger. However, this is not the case for the senior grades, yet they are still less well paid.

Table 1.4 Earnings of university teachers by sex and grade*

Percentages

Grade	Basic Salary				
Professors	£4,500 or less	£5,000 or less	Over £5,000	N.A.	All
Men	40	33	21	6	100
Women	19	81	0	0	100
No.	125	104	65	19	313
Readers/SLs	£3,200 or less	£3,700 or less	Over £3,700	N.A.	All
Men	23	45	28	4	100
Women	33	45	22	0	100
No.	123	232	142	21	518
Lecturers	£2,000 or less	£2,500 or less	Over £2,500	N.A.	All
Men	33	27	36	4	100
Women	44	24	24	8	100
No.	584	457	593	57	1691

Source: Mail Survey. *Note: *Excluding research staff.*

Table 1.5 Earnings of university teachers by sex and age*

Percentages

Age	Basic Salary				
Under 30	£1,500 or less	£2,000 or less	Over £2,000	N.A.	All
Men	36	48	15	1	100
Women	49	47	0	4	100
No.	205	267	69	9	550
Under 40	£2,000 or less	£3,000 or less	Over £3,000	N.A.	All
Men	15	66	15	4	100
Women	28	62	3	7	100
No.	152	649	141	39	981
Under 50	£3,000 or less	£4,000 or less	Over £4,000	N.A.	All
Men	30	39	28	3	100
Women	57	24	6	13	100
No.	214	248	176	24	662
Under 60	£3,000 or less	£4,000 or less	Over £4,000	N.A.	All
Men	19	38	37	6	100
Women	50	43	7	0	100
No.	62	106	93	14	275
60 & over	£3,000 or less	£4,000 or less	Over £4,000	N.A.	All
Men	8	44	35	13	100
Women	58	42	0	0	100
No.	10	39	28	11	88

Source: Mail Survey. *Note: *Excluding research staff.*

Table 1.5 shows that within each ten year age group women earn less than men. The differences are greatest in the older age groups: for example among those in their fifties half the women earn £3,000 or less compared with less than a fifth of the men, and only 7 per cent of them earn over £4,000 compared with 37 per cent of the men. But even amongst those under thirty the men have already established themselves as higher earners: none of the women earn over £2,000 whereas 15 per cent of the men earn more than this sum, and 49 per cent of the women earn £1,500 or less compared with 36 per cent of the men. These differences cannot be explained by more rapid promotion of men, as only a very small proportion of those under thirty will have been promoted to posts above the lecturer grade. Nor can they be explained by subject differences. There are

very small differences in pay between subjects for this age group with the exception of the higher pay for those in medical faculties. However a slightly higher proportion of women are in departments of medicine than the proportion of men in this faculty. The differences are therefore due to three possible situations or a combination of these: men are appointed initially at a higher point on the lecturer scale; men are appointed at an earlier age than women and those in their late twenties have consequently worked their way further up the scale whereas there are a higher proportion of women in this age group with only a year or two's experience; or men 'jump' the scale more frequently than women by getting additional increments. The first of these is probably the most important explanation.

In a study of graduate employment (Rudd and Hatch, 1968) it was found that the average salaries of women postgraduates were a good deal lower than those for men. At the time the figures were £2,097 for men and £1,630 for women. They suggest that this cannot be entirely explained by the lower qualifications of the women (ie fewer with PhDs and more with masters degrees), nor by the fact that the women tended to be found in lower paid occupations such as school teaching. They found that when they examined the differences within graduate categories and within job categories, out of 61 possible comparisons women were paid less in all but three cases. This is entirely consistent with the findings for university teachers. Women fail to secure such high salaries for themselves within the same grade or age groups. This may be because they are more ready to accept any salary that is offered to them, either because they are grateful for anything they can get, or because they regard their pay as unimportant. It may be that universities automatically assume that women should be paid the minimum salary on traditional grounds that they 'need' less than men whether married or single, or they may pay them less simply because they can get them for less. In this sense they appear to discriminate against women.

A number of questions asked the respondents about attitudes towards pay. Table 1.6 shows that in spite of their lower salaries a much higher proportion of women than men tended to have high scores on an index of pay satisfaction, and Table 1.7 shows that they are less likely to believe that their pay is ungenerous in relation to general levels of pay than are their male colleagues. A clue to why this is so is given in Table 1.8: women apparently are less likely to be instrumental in their approach to their job and more likely to have an intrinsic orientation, valuing their job *per se* rather than being concerned about its status, their status within it or the monetary rewards it offers. This interesting finding may or may not be replicated among other women professionals. The likelihood is that it is, for several reasons. The financial pressures on these women, who are married and living with their husbands, and on single women without dependents, are less great than for married men with families to support, unless the men have wives who are at work too. The average pay of women is much less than the average pay of men in the population as a whole, and social expectations about the earning capacity of women are much lower. Thus the economic need for high earnings and the psychological and social pressures to achieve high earnings are probably

Table 1.6 Satisfaction with pay by sex

Score on index of pay satisfaction	Sex		
	Male	Female	All
Low	30	26	30
Medium	37	29	36
High	33	45	34
All	100	100	100

Source: Interview survey

Table 1.7 Attitudes towards own pay in relation to general levels of pay by sex

Own pay in relation to general levels of pay	Sex		
	Male	Female	All
Too generous	5	8	6
Appropriate	45	51	45
Ungenerous	45	36	44
Don't know	5	5	5
All	100	100	100

Source: Interview survey

Table 1.8 Intrinsic job orientation by sex

Score on index of intrinsic job orientation	Sex		
	Male	Female	All
Low	34	19	33
Medium	33	36	33
High	33	45	34
Total	100	100	100

Source: Interview survey

less great for most women than most men. Commitment to the job may also be higher among women, who have had less experience in other occupations and perceive fewer occupational alternatives for the future. Only a fifth of women academics had seriously considered leaving the profession compared with almost a third of the men academics, and 23 per cent of the men compared with 15 per cent of the women had applied for another job either outside or within the universities during the twelve months prior to receiving our questionnaire. Nevertheless, in spite of these findings it is likely that on some women at least lower salaries will have a negative effect.

If women start their career at a salary disadvantage and become conscious of this it may well contribute to a defeatist approach towards future success in the profession. The lack of any models of success has sometimes been put forward as a disadvantage for minority groups, in that it reduces levels of aspiration. This lack of higher achievers, who have been recognised as such by promotion to the highest posts, may be discouraging to women. There may be a subconscious failure to identify with an ambitious or competitive approach to their work, because there are so few examples of ambition fulfilled among the women. Alternatively they may be inclined to consciously decide that as women are paid less, right from the beginning and do not get promoted, there is little point in striving to publish extensively in order to reach the top.[13]

The second question brings us to the problem of promotion. We have already noted that women are not promoted as often as men and that they also produce fewer publications than men. Can we deduce from this that the second of these facts is the cause of the first? It is first necessary to check whether women still publish less when subject differences are taken into account. The data show that the differential between men and women is reduced only slightly in these circumstances and that it is still present in most subject groups. In the humanities where women are found in the highest proportion, the difference is particularly marked for both books and articles. Only in the social sciences are there no differences between the publication rates of men and women. The inescapable fact is that in general women are lower publishers than men even when their concentration in certain faculties

13 Sommerkorn found that 21 per cent of her sample of women university teachers expected to be promoted and considered their chances as good as those for men, and another 21 per cent thought they had no real chance. But there was also a significant group who claimed that they were not interested in promotion. Sommerkorn suggests that the fact that nearly one in five respondents had little ambition is not surprising as society "does not set particular store by women's professional success." Halsey and Trow also found that women were more pessimistic about getting a Chair than men. Thus 64 per cent of women thought they were less likely to get a Chair than other university teachers of their age, compared with 24 per cent of men. It appears from this too that a process of the self-fufilling prophecy may be at work. Those who believe they have no chance are unlikely to go after the chances when they occur.

is taken into account. This must go some way towards explaining their poor promotion prospects.

We noted earlier that women tend to be slightly less well qualified than men with respect to possession of a first class degree[14] and markedly less well qualified with respect to the possession of a doctorate. We have investigated whether the second and stronger of these relationships still stands when subject is taken into account. Just as in the case of publications we find that it does, and that the differences between men and women are especially strong in the humanities. Again the social sciences are an exception: there are no differences — if anything women are more likely to have a PhD than their male colleagues. Women applied scientists are also as well qualified in this respect as the men. We also find that those women who have been promoted to the senior grades are as well or better qualified than the men in terms of PhDs. But with reference to publication, women readers and senior lecturers[15] tended to be among those publishing the least and among those publishing the most, with very few in the intermediate groups, in comparison with the men.

It was also noted earlier that women were less likely to have moved about between universities and less likely to have had experience in other occupations. Both these factors could effect their promotion chances. By and large academics hoping to achieve promotion are more likely to do so if they move from university to university (Williams, Blackstone and Metcalfe, 1973). When the shorter amount of time women in the sample had spent in the profession is taken into account, the difference between men and women in the amount of inter-university mobility is reduced somewhat but does not disappear altogether. How far experience outside the profession is considered as an advantage when promotion is sought, will of course vary from subject to subject. However, in the applied sciences, medicine and some of the social sciences, some non-university experience is presumably considered desirable. Half the women respondents had never worked outside the universities, compared with 35 per cent of the men and whereas the most usual occupational experience for men was industry followed by the Civil Service or local government, in the case of women the most common occupation was school teaching. Just under a quarter of the women gave school teaching as their most likely alternative occupation compared with only one in ten of the men, and men were far more likely than women to name industry and commerce or research as their most likely alternative occupation. Undoubtedly some

14 It is interesting that women who have been in the profession the longest are the most likely to have first class degrees. The decline in the number of academics with first class degrees has been discussed elsewhere, but it must be noted that the decline is much more drastic with respect to women than men. The opening up of opportunities for able women in other professions may account for the more drastic decline among the women.

15 There were too few women professors in the sample to consider them separately.

promotion by universities is a response to the threat of losing highly regarded people to lucrative posts outside the universities (or to other universities). If women's most common occupational alternative is school teaching they are less likely to have as many opportunities of jobs outside that they would be prepared to exchange for lectureships. It is interesting that in spite of their poor promotion chances women were less likely than men to believe that the chances of good prospects of promotion on merit were worse in the academic profession than their most likely alternative occupation.

They had similar views about long-term sal[illegible]spects, compared to their male colleagues. This suggests that they ar[illegible]ely to accept their lot as lecturers than men university lecturers woul[illegible]able 1.9 also shows that women are much more likely to score high on index of relative job satisfaction than men. This confirms a point made early in this chapter that women tend to be satisfied with membership of the high status professions, which has been denied them in the past, and therefore are more willing to forego high rewards in terms of salaries or the top jobs than are men.

Table 1.9 Job satisfaction by sex

Score on index of job satisfaction	Sex		
	Male	Female	All
Low	28	11	27
Medium	35	36	35
High	37	53	38
Total	100	100	100

Source: Interview survey.

Finally are women discriminated against at the point of entry to the profession? In a survey of applicants to university posts it was found that the special proportion of applicants offered jobs is the same for men as for women.[16] The women applicants are not better qualified than the men, in fact as in the general sample of those in the profession they were less likely to have a PhD, although more likely to have a master's degree, so on grounds of qualification, there is no reason why they should have been appointed in proportionately larger numbers than the men. Whether they should have been appointed in

16 This is clearly not the case in all professional occupations. For example Fogarty *et al* in studying women in top jobs found that women were accepted in lower proportions than applied, into the administrative class of the Civil Service. Examining records over a thirteen year period from the late forties to the early sixties they found that they constituted 22 per cent of candidates for Method I but only 15 per cent of successes, and 19 per cent of candidates for Method II, but only 14 per cent of successes.

proportionately larger numbers in order to *positively* discriminate in their favour is a matter for political debate. What is quite clear from this and from the previous discussion about women's qualifications, publication rate, and experience is that it is difficult to demonstrate discrimination against women by the universities. The small numbers in the profession are due to the small numbers applying. This may be partly a result of a more subtle form of discrimination by university teachers themselves, who do not encourage their women graduate students to apply, as mentioned earlier. Unfortunately it is only possible to speculate about whether this occurs or how widespread its occurrence is.

How far are the findings from American and other British studies that women academics are less committed to research and more committed to teaching than their male counterparts valid according to this evidence? We have examined differences between the attitudes of men and women towards research and teaching from a number of different angles. In general our findings do not give strong support to the existing evidence, although in certain respects there is a slight tendency for women to be more teaching orientated than men.[17] Thus a slightly higher proportion of women score high on an index of importance attached to teaching than men; rather more women claim that it would be likely that they would attend training courses in teaching methods if these were offered than men, which suggests that they may be a little more conscientious than men about teaching; a slightly lower proportion of women give research facilities the highest rating when considering the criteria that would influence them when applying for a job in another university, and a rather higher proportion of women felt they had been handicapped in doing research by their teaching commitments, which Halsey and Trow also found in 1964. This last finding is not in accord with the reality of their situation, for although they spend marginally more time teaching undergraduates, they spend a good deal less time teaching post-graduates than their male colleagues. The claim that women's research productivity is impaired by heavier teaching loads than in the case of men is a false one according to this evidence. Nor is the greater tendency among women compared with men to both prefer teaching postgraduates to undergraduates, and to want to spend less time teaching undergraduates, consistent with a view of women as wrapped up with and committed to teaching basic courses. Nor were they more likely than men academics to believe that it is more important for them as undergraduate teachers, to have a broad knowledge of their subjects rather than a specialized knowledge of some part of it. They were not more likely to believe that good students received too much attention at the expense of inspiring the uninterested than their male colleagues either. However in general women university teachers did show a little more concern for the needs of students than the men. For example they were more likely to believe that less outside work should be

17 Administration however seems to be less of a scourge for university women than men: whereas 57 per cent of the men wanted to spend less time on this activity, 42 per cent of the women wanted to reduce the time spent on it.

done by staff to allow more time for students, and they were slightly more likely to believe that less time should be spent on research by staff to allow more time for teaching.

Sommerkorn wrote that "two women in five showed an overt sense of moral duty to the students, stating explicitly that a university teacher has an obligation to the proper teaching of undergraduates." Some of our findings indicate a more conscientious attitude towards students and teaching on the part of women but we have no means of telling whether this is reflected in actual behaviour.[18] Nor, it should be stressed, were the differences between men and women large in any of the cases mentioned, and in a number of cases they were non-existent. Thus, for example, we did not find the differences to be anything like as great as those found by Halsey and Trow with respect to interest in teaching or research. They found that 50 per cent of women were interested in both but with a leaning towards teaching compared with 35 per cent of the men, who were much more likely to lean towards research. The fact that from the evidence of this study women do not actually teach more than men, nor do they differ a great deal in terms of attitudes, suggests that a greater commitment to teaching on the part of women is not an adequate explanation for their lower level of research productivity. When comparing the evidence from this study with that of Halsey and Trow and Sommerkorn, it appears that women have become somewhat more research orientated without becoming more productive in research terms as yet. It is also possible that in the past a commitment to teaching was an effect rather than a cause of low research output, and that the women recruited during the sixties are no longer partially substituting involvement in teaching for lack of research output. In this case we could be passing through a transitional phase in which women no longer identify more strongly with the teaching role than men, yet have not yet been able to free themselves of certain inhibitions about writing and publication.

The resurgence of the feminist movement is indicative of the resistance of educated middle class women to sex-role typing. Thus Bernard's analysis of the situation in the early sixties may be less appropriate today: "that the major contribution to the academic enterprise should have been as teachers is related also, presumably, to the fact that the role of teacher is consonant with that of other roles assigned to women in our society. As mothers, women have been traditionally conservators and transmitters of non-controversial knowledge. Academic women then have performed some of the hardest work that has to be done by academic institutions, the grinding drudgery of unchallenging introductory courses, and thus have released academic men for the more rewarding assignments, graduate courses in the new and more exciting areas . . ." (Bernard, 1964 p 125). Women are consciously trying to escape from being limited to traditional roles, and thus are not more interested in teaching than men, or if they are will not admit it, yet are still not aggressive or competitive

18 Halsey and Trow found that women felt less able to do research during term time than men, which suggests that they may be more conscientious about allocating time to preparing teaching and seeing students.

enough, having rejected the teaching role to fully take on the research role. It may take some time before these underlying factors cease to have any effect on the creativity and productivity of university women.

Can some of the differences between men and women academics be explained in terms of the special position of married women, who perform dual roles? Are married women different to single women in terms of their output or commitment or occupational experience? Having compared married women with single women in various ways, it is clear that they are no less productive or lacking in relevant experience than single women, in fact in some respects they are more productive and have wider experience. This is further support for the view that the domestic responsibilities of women is an inadequate explanation for their inferior position in the profession: those with the most domestic demands are not the least conventionally successful. Married women had published more than single women: for example more than half of the single women had written no articles during the two years prior to being interviewed, compared with a quarter of the married women, and whereas only one in twelve of the single women had written six or more articles in the previous two years, one in six of the married women had done so. There are similar differences with respect to books. These surprising findings led us to check whether married women are older than single women in the profession and have therefore had more time to write books, or to gain experience in foreign universities (a slightly higher proportion had worked in universities abroad than single women). In fact the age distribution of married and single women is somewhat different: there are fewer married women in the over 50 age group and more in their forties, but the proportion of young women in their twenties and thirties is almost identical for married and single women. Thus if anything married women are a little younger rather than older, which may partly account for the fact that fewer of them are in senior posts than their unmarried colleagues, in spite of the fact that on average the married women publish more. This suggests that some able married women may be discriminated against whereas single women are not, as the age difference could not entirely explain the poorer rates of promotion of married women – most promotion takes place in the late thirties and forties anyway, not the fifties. The only other difference we can find between married and single women is that the former have less experience of non-university posts; they have not, however, been less mobile within the universities.

As marriage becomes more democratic with shared decision making and shared domestic chores, it could become less of a burden or restraint on the professional success of women. Clearly the married women in this sample manage as well or better than the unmarried to pursue their careers energetically. But does this apply to married women with children? Even those women with progressive and considerate husbands are likely to be hampered at times by the need to devote time to their children, particularly in their early years, when wives generally have the greater responsibility for child rearing. We found that the small number of women in our sample with children were mainly in their thirties and forties, as would be expected, and they were just as likely to have a senior post as those without children (one in six compared

with one in seven of those with no children). They had had more rather than less time in the profession than those without children: only one third of them had less than five years experience compared with two-thirds of those without children. This indicates that probably in only rare instances do they leave their jobs when their children are young and return to them later.[19] Their longer experience in the profession might explain the fact that they have published rather more books, but it does not explain the fact that they had written far more articles in the two years prior to being interviewed than women without children. They are in fact the only group of university women whose research output is initially as high as their comparable male colleagues.[20] It is difficult to know how to interpret this surprising finding without further research. However the following explanation seems plausible. Married women who continue to work after the birth of children have to break existing social norms, which are more universal and strongly adhered to than norms about the restriction of professional occupations to men. Thus they have to be women of exceptional drive and confidence to attempt to break down this double barrier. In order to justify their rejection of the maternal role as a main commitment, the pressures on them to achieve are greater than for other women. Otherwise they must constantly question themselves about whether it was worthwhile making the sacrifices that are required of themselves and their families; it is especially important to them that there should be some tangible return to their deviant decision to remain in full-time work. If there were little or nothing to show for it, it would be even harder to assuage any guilt they might feel and there would be too little social recognition to balance the social criticism. But whatever the cause of the greater research productivity of women with children it provides further evidence to support the contention that the success of women in the profession is dependent on more subtle considerations than freedom from domestic responsibilities.

In conclusion there is little support for any of the hypotheses put forward to explain the position of women in university teaching. It seems clear that we must seek to explain this by reference to more fundamental issues pertaining

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19 Sommerkorn found that as many as 21 per cent of her sample of university women had had a period of no work, of whom four-fifths were married women with children. However she also found that a very much smaller proportion of the younger married women had had interruptions. This finding, coupled with our own evidence, supports the view that the practice of remaining at home for a few years with young children may be becoming rarer among women academics.

20 Fogarty *et al* (1971) did find that with respect to senior Civil Servants "having children further depresses a woman's chances of moving into the top of the class", but they go on to note that "it would not appear that the difference between married and single women is as striking as the difference in career success between male administrators, the majority of whom are married, and female administrators, the majority of whom are not married.

to the position of women in the wider society. Although many women (60 per cent in Sommerkorn's sample) believed that discrimination did sometimes take place, a much smaller proportion, about a third, thought that they personally had suffered from discrimination, and when asked about why women rarely got Chairs, discrimination was given as a reason by very few women indeed. Women university teachers should not be castigated, therefore, for inventing barriers of this kind which do not exist. On the contrary, they exhibit surprisingly few paranoid tendencies, instead giving reasons that undervalue their own competence rather than projecting hostile attitudes about the university hierarchy that appoints or promotes them. Thus they claimed that women did not get Chairs because of a multitude of personal deficiencies, ranging from no administrative ability, inadequate evidence of scholarship, lack of drive or lack of ambition, to personality problems in handling positions of authority. However when they were asked why there are so few women in the profession in any rank, they came up with a range of explanations that emphasize the societal factors that lie behind women's restricted participation in the profession, and which take us a long way towards explaining this phenomenon. The main reasons they gave were first subjective role conflict women's role expectations are not geared towards a career, the social pressure on them is to marry and eventually drop out of the serious pursuit of a career, and associated with this they lack the sustained interest and ambition necessary to do so. As a result there is too small a recruitment source of women to go into the profession — too few female undergraduates and still fewer postgraduates. Objective role conflict is also present in that most women are unable to devote all their energy to careers because of domestic commitments, and it is difficult for them to re-enter the profession, if they do remain at home during their children's early years.

The evidence presented earlier suggests that as far as objective role conflict is concerned, those that surmount it do so with success. It is not insurmountable. Subjective role conflict is a far deeper problem, which is much more difficult to surmount. Sex-role typing at school and in the family has great and lasting power over women's conception of self. Socialization into a system of value, which can lead 60 per cent of a sample of women graduates in the United States to state that it is more important to help their husbands in their career than to develop a career of their own (Rossi, in Mattfield and Van Aken, 1965) is responsible for this phenomenon. No amount of the kind of change advocated by Fogarty, Rappoport and Rappoport, 1971 towards more flexible hours, day nurseries, time off for school holidays, part-time employment,[21] generous maternity leave and so on can create the preconditions necessary for women's success in professional careers, for as we have shown single women are just as handicapped as married women. This is not to say that these innovations would not be of some help. However the fact that women's participation in a profession, where nearly all these conditions exist, is still so limited provides strong support for the argument that a more radical programme, involving a revaluation of our values and in consequence a fundamental change in the way children are socialized, is necessary, if women are to participate in professional careers on equal terms with men. Only then will the essential preconditions for success as career

women be present, which are support from the woman's husband and family and her peers, and self-confidence and ambition, rather than self-doubt and diffidence on the part of the woman herself.

21 Rossi (1965) describes part-time work as "this generation's false panacea for avoiding a more basic change in the relations between men and women, a means whereby, with practically no change in the man's roles and minimal change in the woman's, she can continue the same wife and mother as she has been in the past, with a minor appendage to these roles as an intermittent part-time professional or clerical worker." It is hard to argue with this claim. What is more it is difficult to imagine how university teaching (or for that matter many other professions can be *successfully* pursued part-time). The business of research and scholarship requires a full-time commitment, if the academic is to keep up with the developments in her subject and its ever growing literature, let alone contribute to this by research and writing of her own. Because success in this career is especially dependent on a cumulative process of building up publications over many years, periods of part-time work or no work are even more likely to undermine a woman's chances than in many other professions where at first sight part-time work may seem more difficult to arrange.

MEASURES TO COMBAT DISCRIMINATION AGAINST WOMEN IN HIGHER EDUCATION

Margherita Rendel

In the United States in 1865 the 13th Amendment to the Constitution abolished slavery. Five years later, in 1870, the 15th Amendment provided that:

> "The right of citizens in the United States to vote shall not be abridged by the United States or by any State on account of race, color, or previous condition of servitude."

In 1964, 99 years later, the Civil Rights Act was passed. In Title I there is provision to ensure that the descendants of the former slaves should in fact not be excluded from the franchise. Other Titles of the Civil Rights Act deal with other aspects of discrimination. We must therefore note that it has taken practically a century and further legislation to ensure that the free and equal citizenship to which the descendants of the slaves — the black citizens of the United States — have been legally entitled for so long should become effectively theirs.

I have begun with this historical analogy because I want to stress the longevity of prejudice, the weakness of the victims in the face of prejudice, and hence the crucial role that promotional legislation can play in combating what The Times in November 1972, on the occasion of the publication by the Labour Party of its evidence to the House of Lords Select Committee on the Anti-Discrimination Bill, called, and rightly called, "a great social evil".

I have begun with this analogy for another reason also. Gunnar Myrdal in 'The American Dilemma' points out that the status of the imported negro slaves in the 17th century was modelled on the status of women and children. We should note that a major role in ending slavery was played by women; they expected that they would get the vote when the emancipated negroes did, but they were disappointed. Their successors in 1964 have been more fortunate, since Title VII of the Civil Rights Act of 1964 covers discrimination in employment on grounds of sex as well as on grounds of race, colour, national origin and religion.[1]

First I will examine the American legislation and its implementation in practice. Then I shall try to draw some conclusions relevant to the circumstances and legislation of the United Kingdom.

American Measures

The Equal Pay Act of 1963 (see Appendix 1 for further details). This Act is enforced by the Wages and Hours Division of the Department of Labor; that is to say there is a small Inspectorate which has the right to look at the books of companies and employers affected by the legislation and ensure that the legislation is being complied with. In this way it is comparable to the work of the

1 Now covers educational establishments — See Appendix 1.

Wages Inspectorate in this country, but covers a wider and different range of firms.

Secondly, it is possible for a woman, or indeed a coloured person, to make a complaint anonymously so that the employer does not know who or whether an individual has made a complaint.

Thirdly, millions of dollars have been awarded to women in back pay as a result of investigations and court actions taken by the Department of Labor. In some cases, women have received double back pay. This is a real and effective financial sanction. In 1969, the Inspectors of the Wages and Hours Division began to recognise the importance of finding back pay for women; this means that they began to recognise not simply that it was a part of their job to find back pay for women, but that finding back pay for women was a praiseworthy activity within the terms of reference of the Department.

Title VII of the Civil Rights Act of 1964 This is probably the best known of the American equal opportunity legislation. I want first of all to draw attention to the extreme narrowness of the exclusions, particularly after 1972 when the Act was amended to include educational institutions. Employers are allowed to discriminate on grounds of sex where there is "a bona fide occupational qualification". In cases which have been taken to the courts this phrase has been construed very narrowly, and speakers from the Women's Bureau of the Department of Labor, the Equal Employment Opportunity Commission and others, when explaining what this means, advise employers that for all practical purposes they might as well forget about it, as it refers to actors and actresses, sperm bank donors and wet nurses. It will not save an employer who discriminates. I doubt whether British courts would take a similar line. The comparable phrase in the Bill passed by the House of Lords in 1973 is "a genuine occupational qualification"

Secondly, class actions. This is an action by which one individual can sue on behalf of a whole group of people. Now it is possible to do this in English law the English term is 'a representative action'. It would be possible for one individual to sue, say, ICI on behalf of herself and all other employees of ICI, but there are technicalities and this type of action is not available for damages. However, it is an action which already exists in our law and which we should develop

rdly, employers are required to provide statistical information. It has therefore een possible in the United States to bring cases on the 'pattern and practice' of an employer. The pattern and practice can be most clearly shown by the statistics which reveal the numbers and proportion of women (and other disadvantaged groups) in comparison with those for more favoured sections of the population at different grades, in different jobs, at different levels of skill, training and pay. It is also possible from these statistics to make comparisons between different employers in the same industry. The now celebrated AT&T case which led to some $15,000,000 in back pay being paid to women was based partly on the number of complaints being made by women employees of AT&T and partly on

the statistics which were returned by AT&T.

Fourthly, it is possible under American court procedure for interested parties or organisations, which are not directly participants to the action, to file briefs. In the first instance, women employees had themselves to bring their cases before the courts, and the first cases under Title VII were brought by women manual workers. They sometimes lost their cases in the Federal District Courts. However, it was often possible to find able women lawyers to fight the cases in the Circuit Court on appeal. It was also possible for the EEOC — the enforcement agency for Title VII — to file what is known as an 'amicus' brief and ensure that all the relevant arguments were put before the court. I have not been able to trace a comparable procedure in this country. It is not uncommon for workers to be represented by their trade union in litigation, but unless the trade union is well briefed, I think there may well be difficulties, either in the County Court or in the Industrial Tribunal, or on appeal. Adverse decisions can affect the development of law for a long time. This is perhaps a far more serious matter in this country in view of the relatively unified judicial structure and the importance of precedent than it is in the United States. Thus, in the courts we may confront very considerable difficulties in enforcing anti-discrimination legislation.

Fifthly, it is possible for the American courts, and they have done this, to order that a particular woman shall be appointed, or shall be promoted, not merely that she shall get damages, not merely that she shall get back pay or fringe benefits, but that she shall actually get the job. Now it is an established principle of English law that specific performance cannot be granted in circumstances of this sort, and nobody should be ordered to employ a particular individual. A change in this principle would be a very radical development, but it is one of the most effective sanctions: if an employer knows he will have to employ the woman anyway, he might as well do it before fighting a lawsuit with her.

Finally, the EEOC, like various other agencies, has power to require an affirmative action programme, to which I will refer in more detail later on.

The following figures give an indication of the scale of operations. The budget of the EEOC for the financial year 1973/74 was $43,000,000. Sex discrimination cases make up about one-quarter of the total number of cases investigated; these totalled 6,781 in 1971-72. But these figures do not include education cases, which only came within the purview of the EEOC in 1972.

Executive Orders. Title VII does not apply to the Federal Government. However, the President, then Lyndon Johnson, thought it was not right that the Federal Government should discriminate. He therefore issued an Executive Order requiring equal opportunity in employment on all the grounds required by Title VII. In fact, the Executive Order probably went further than Title VII in that it required affirmative action programmes from all employers who held contracts of the Federal Government. The Order also applied to sub-contractors; 'contractors and sub-contractors' has been widely interpreted to include all their employees and not merely those engaged on the contract work. The revised Order 4 went so far as to require the employer to develop specific goals and time-

tables for the employment of minority groups and also of women. The order did not impose a quota, it required that by a specified time an employer had to have made a good faith efforts to get a stated proportion of women and minority groups into his employment. Thus there is no problem of unqualified people being recruited and the possibility of unqualified people provoking hostility from other workers does not arise. It is important to appreciate the distinction between a goal with a timetable attached to it and a quota sytem — the two are significantly different.

The sanctions for the Executive Order have been suspension of government contracts, the delaying of contracts or the banning of the employer from receiving government contracts in the future.

In about 1970, it was realised by a number of academic women that their universities held government contracts for research. It therefore occurred to them that there was no reason whatsoever why their universities should not be challenged to show what affirmative action programmes they had and what they were doing to discourage and limit discrimination against women. It was found, of course, that the universities were discriminating, and government action did in fact follow. There were a number of cases in which government grants were suspended. For example, at the University of Columbia a contract of $1·9 million was suspended, and at the University of Michigan at Ann Arbor a contract for $7½ million was delayed. So the sanction operates. The university authorities start to think when they find that money is not going to be forthcoming. Clearly this is a technique which could effectively, indeed very effectively, be applied by the University Grants Committee in this country.

Under these various pieces of legislation, and under the executive orders, the relevant enforcement authorities have power to draw up regulations as to procedure, which are normally upheld by the courts unless they are clearly unreasonable. They also have power to draw up guidelines interpreting the legislation or the order and these will normally be upheld by the courts also; in any case the courts will attach great weight to the guidelines drawn up by the agency. Guidelines are subject to public scrutiny before they come into effect. They are normally published and public hearings are normally held at which interested parties can give oral evidence as to whether they consider the guidelines are effective and reasonable. In the transcript of the hearings on the guidelines on sex discrimination drawn up by the Office of Federal Contract Compliance in 1969, the United States shipping line complained that stewardesses could not possibly be employed on the liner 'United States' because if the liner were in difficulties it would be necessary for all the stewards to man the ship and the boats. Stewardesses are commonly employed on other shipping lines without risk of danger. The United States line will have had to change its policy.

Many court decisions have been helpful in their interpretation of the legislation and in their decisions on those cases which have come before them. There is a summary both of the procedures of the EEOC and details of specific cases with quotations from some of the judgments, in the evidence to the House of Lords Select Committee on the Anti-Discrimination Bill given in November 1972 by

myself, Sonia Pressman Fuentes and Catherine East.[2]

British Measures

Many people have probably heard about the *Sex Disqualification (Removal) Act, 1919*, but probably rather fewer have actually read it. It has often been suggested that this would be a suitable piece of legislation to put an end to discrimination against women. It is a very short Act – about one page and one page of Schedule – and deals with sex disqualification, including marriage; it applies to universities, solicitors, barristers and public office specifically. Marriage, universities, solicitors and barristers were all introduced in the House of Commons as was the right of peeresses in their own right to take their seats in the House of Lords. From the debates in the Lords it appears that their lordships, or a majority of them at least, were mainly concerned lest peeresses in their own right, of whom they whittled the number down to eleven and then to six, who would be affected by this legislation, should sit with them.[3] There was no need to reform the Lords because they might be abolished, and peeresses should not be admitted meanwhile, because the Government intended to reform the Lords. Lord Birkenhead, who was then Lord Chancellor, said he would rather be doomed to extinction in the exclusive company of his own sex, in spite of a suggestion from another peer that perhaps he might have liked the soft touch of the hand of ministering angels.[4] Apart from this, the Lords were much concerned about the effect of women serving on juries. They might hear about nasty things that happened in woodsheds and suchlike.

The emphasis was somewhat different in the Commons where there was great anxiety about women in the Civil Service in the higher grades, in spite of the examples which were cited of women who had been governors of Baghdad during the first World War. There was also concern about the great difficulties which would be involved in having competitions for boys and girls of the same age for admission to the clerical grades; girls, it was said, were only fit for the examination a year or so after the boys so that it was a great help to the girls that they were not allowed to compete at the same age as the boys. But the Commons also were concerned about jury service. Divorce cases were then heard before juries, and the Commons, or some members of them, were afraid that women hearing divorce suits would be so incensed at the behaviour of men that they would let their hearts get the better of their heads and actually give judgment in favour of women contrary to the prescriptions of the law.

Only some five cases have come before the courts under this Act. The first was the Viscountess Rhondda case – a peeress tried to establish her right to sit and that was in 1920. In 1923 and 1926, married women teachers tried, unsuccessfully, to use the Act to prevent their local education authorities from dismissing

2 House of Lords, Minutes of Evidence and Proceedings of the Anti-Discrimination Bill [H L] Select Committee on the Bill, Session 1972/73 (13) 21st and 28th November 1972 pp 69/112 and pp 125/196

3 The Lords had their way in this.

4 House of Lords Debate 11th November 1919 Col 174

them.[5] The most recent case was *Nagle* v. *Fielden*[6] which is the Jockey Club case and was heard in 1966. Mrs. Nagle won her case on the grounds that the Jockey Club had a monopoly of control of entry into the profession, and, therefore, was not allowed to exercise this monopoly arbitrarily. If she was able to do the job it followed she must be given a licence.

The reason why so few cases have been brought, apart from the very narrow scope of the Act itself, may be explained by some advice that was given to the Treasury in 1921 on the meaning of the Act:

> "The Act meant that the woman is not under an inherent disability from holding certain posts because she is a woman or because she is married. In other words, the appointment of a woman or a married woman to these posts, if made, would not be invalid. It is quite another thing to say that a woman is entitled to be appointed to or to hold any of the specified posts on exactly the same terms as if she were a man and this, in fact, is precisely what the Act refrains from saying."[7]

That is the sort of reasoning that enabled Cambridge University, for example, to exclude women from membership until 1948 in spite of the provisions of the Act.

We had no further anti-discrimination legislation until the Race Relations Acts of 1965 and 1968. Under the 1968 Act, the Race Relations Board and complainant have no power to require the production of documents or to interview witnesses before bringing a case. Indeed, only the Board can bring a case, and the complainant has no right to sue. If the Board thinks there is a case of discrimination it must go to court first before it can get hold of any documents which would prove or disprove the case. Now this is in complete contrast to the provisions of American legislation by which the enforcement agencies can require the production of documents before court action starts. The Race Relations Board is in a very difficult situation when it wishes to take cases to court. It has the complainant's version of the story only, and if the employer is well advised and is discriminating against individuals, he will not give any information to the Race Relations Board and cannot be made to do so. The complaint may be well-founded or not, but nobody knows until the case is actually in the courts. The Race Relations Board is, therefore, at a grave disadvantage because it must risk taking cases, and perhaps ill-founded cases, to court and loosing them.

The Equal Pay Act 1970 The implementation of this Act depends on the initiative of individuals and of trade unions. *The Fair Wages Resolution of 1946* is a most ineffective piece of resolving; Jim Skinner's excellent Fabian pamphlet[8]

5 esp. *Price* v. *Rhondda UDC*, [1923] 2 Ch 372. I am grateful to W.B. Creighton of Edinburgh University for this reference.

6 [1966] 1 All E.R. 689.

7 Hilda Martindale, 1938, "Women Servants of the State", p 99

8 Fabian Research Series 310, June 1973 "Fair Wages and Public Sector Contracts".

shows that the main object of the civil servants in putting out contracts to tender is to make sure that the price is as low as possible, without examining whether the terms of the Resolution are being complied with. Hence, Skinner is able to list a series of cases which have concerned night cleaners. These are practically all, if not all, the cases which have arisen since about 1968/70.

Anti-Discrimination Legislation In the summer of 1973 there were two Bills before Parliament. Neither of them is as effective as any of the American legislation I have referred to. One Amendment to the original Bill made by the Lords concerns the right of the Sex Discrimination Board to call for information. It is an attempt to get over the difficulties of proving discrimination in individual cases, to try to get instead some evidence about the pattern and practice of an employer in his personnel policy. This type of statistical evidence can be used to show that discriminatory employment practices are, in fact, being followed, and this type of evidence can give some leverage against an employer. We need a provision of this sort for the further reason that the 1919 Act simply removed a disqualification — it did nothing to put an end to discrimination. These two are distinct, although they are often confused. Disqualifications in most professions, occupations and public office were ended by the Act, but the majority of occupations are still effectively closed to the majority of women. Therefore it is not enough to remove disqualifications; it is necessary also to remove discrimination. Discrimination is not necessarily a formal legal barrier, but may be a formal or informal practice which effectively bars women from membership or employment.

Therefore we need to take a further step. We need legislation which will actively promote the employment of groups who have been discriminated against. This is the object of an affirmative action programme. Nothing in our proposed legislation, so far, is designed for this purpose.

Affirmative Action Programmes

Affirmative action programmes vary. They can be very short like one from New York University. They can be more substantial documents running to several pages like the one from Arizona State University, or they can be very sizeable documents running into many pages like the one from the Minnesota State College System. The effect of pressure from the Department of Health, Education and Welfare, the enforcement agency, is to make them longer and more detailed including projections of future staffing. These documents usually start with a statement of principles. For example, Arizona State University as an institution of higher learning is dedicated to the inculcation of the highest ideals of citizenship in a free society. It is the policy of this University to provide equal educational and employment opportunity and advancement consonant with appropriate laws without regard to race, creed, colour, sex or national origin. All members of the faculty, staff and student body are expected to assist in making this policy a practical reality. And then the document deals with the requirements and the actual implementation of these splendid phrases.

Implementation is commonly along the following lines. A committee (or committees) is set up to review the position of women in the university, including not

only faculty but also staff members (that is secretarial, administrative and other employees of the university) and at least graduate students. The review committee investigates the aid available to students. As regards staff, it compares the nature of the work, the qualifications and salaries of both men and women. The scope of the investigation as between men and women members of faculty is more far-reaching, as might be expected. It covers not only work, qualifications, experience and salary, but also publications and tenure, promotion and the operation of the nepotism rules. These rules, which are common in American universities (and exist in some British universities also) prevent members of the same family, and this especially means husbands and wives, from being employed in the same department or in the same university. When rules of this sort operate, it is nearly always the wife or the female members of the family who are excluded. The review committee sometimes also investigates appointments to university committees and participation in the government of the university. Some committees have been considering the possibility of introducing part-time appointments, part-time appointments with tenure, and fringe benefits. Of course, committees have been investigating recruitment procedures.

The composition of these investigatory bodies and of the grievance committees set up to deal with individual cases should be noted. They tend to have considerable numbers of women, possibly all women members: but usually there are some men, at least on some of the committees. In this country we tend to think that it is very desirable that we should carry the men with us, that we must not have a battle of the sexes and that many men support equal opportunity for women (or say they do), that we must not alienate them and so on. However, research by Marianne Ferber and Jane W. Loeb[9] has shown that

> "Perception of sex discrimination appears to be more acute among women than men. For example, considerably more women than men seem to be aware of salary and rank inequities which have been documented elsewhere. Amongst women, married women seem more aware than single women of discrimination, possibly because they have, as suggested earlier, experienced more of it."

I think there is a lesson there which we might take to heart: in our anxiety to carry men with us we must remember that they do not actually experience the discrimination that women do.

The affirmative action programme will also make provision for the dissemination of the policy stated, and of the means for its implementation, and of the grievance procedures, to members of the staff and faculty through whatever internal means of communication exists in the institution: through university bulletins, newsletters, notices and so on. The affirmative action programmes also require action to be taken to recruit more women — actually to go out and find the women — the problem which Tessa Blackstone posed by could not find an answer to.

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9 January 1973, *American Journal of Sociology*, Vol 78 No 4, also published as *"Changing Women in a Changing Society"*, *ed Joan Huber*, pp 259.

But the Americans have found an answer to this, or the beginning of an answer at least. Nearly all the American professional and subject associations have set up committees which are specifically concerned to maintain a list of women, potential academics or actual academics, who are seeking promotion, wish to obtain high posts, are willing to move and so on. Some examples of these organisations and committees are: The American Anthropological Association Committee on the Status of Women in Anthropology, American Association for the Advancement of Science — Women's Caucus, American Association of University Professors — Committee on the Status of Women in the Profession, American Society of Biological Chemists — Sub-Committee on the Status of Women in the Profession, American Chemical Society — Women Chemists Committee, and so on. Vacancies have to be notified to these bodies.

In the Minnesota Affirmative Action Programme there is a form which has to be filled in when appointments are made: details have to be given of the name of the person applying to the department, the title of the job, the job description (particulars will have been drawn up in advance), where the job was advertised and that includes women's publications and minority publications, the applications resulting from the advertisement, the applicants referred from personal referral under the sponsorship system, the candidates interviewed, the total applications received. An additional question which must be answered: "If a woman or minority candidate is not being recommended for hiring in this position please explain." This may seem an excessively demanding question. Another piece of research may put it in perspective. In a research project[10] two curriculum vitae forms were sent out to the Department Chairmen of 228 degree-granting psychology departments in the country, each one containing ten paragraphs describing the professional behaviour of a young psychologist. The respondents were asked to rate the desirability of each and indicate the sort of job the individual would be offered. The curriculum vitae forms differed only in the christian names (feminine for one set and masculine for the other). What might be expected happened. Men were more often offered positions and more often positions with tenure. Only men were offered full professorships though other differences between the candidates were much stronger determinants of the rank offered than was sex. The researchers conclude this persistent devaluation of women scholars perhaps also accounts for the vague feeling that the influx of a large number of women lowers the general standing of a department. But this is especially interesting as there is already evidence which shows that people attach more value to printed material with a male christian name than with a female christian name.[11]

The evidence in 'The American Psychologist' shows that the same prejudice applies in relation to appointments. This also shows the difficulty of dealing with the problem, because deep-rooted, inherent prejudice has to be overcome. It is furthermore prejudice which those who show it are often totally unaware of. For this reason it is worthwhile making people account for their refusal to appoint a

10 December 1970, *The American Psychologist*, vol 25, no 12

11 For example, L Johnson Abercrombie, 1960 "The Anatomy of Judgement", p 120-121. Other research has produced comparable results.

woman or a member of a minority group. The appointing committee has to account for why one person's qualifications and experience are not as good as another person's in spite of appearing to be better.

The affirmative action programmes also require regular review procedures. Women can also sue on their own account and there have been cases of women doing just that.

Lessons for Britain

What can we in this country learn from American experience ? We may, incidentally, be directly affected by American developments because a woman has now been nominated by an American university for a Rhodes Scholarship. Edward Bishop MP has asked parliamentary questions as to why Rhodes Scholarships are confined to men, without obtaining satisfaction from the Secretary of State for Education and Science. However, the Trustees of the Rhodes Scholarship Fund may be changing their minds, as a result of developments in the United States rather than in this country.

How can we use our own legislation ? Tessa Blackstone has shown that women are usually appointed lower on the salary scale than men. I do not see what is to prevent women academics in this country from taking their cases to the Industrial Tribunals under the Equal Pay Act 1968. Perhaps we should try to organise a caucus of women academics in the AUT to provide help for this and other purposes. The AUT is likely to be sympathetic because Laurie Sapper, the General Secretary, has publicly said that women do not apply for Chairs because they know they are not going to get them. [12]

However, there would appear to be nothing to prevent the UGC from requiring affirmative action programmes from British universities. After all, the UGC does lean on universities in various other ways, for example, on building costs, on design of buildings, on staff: student ratios and on the distribution of subjects — the more esoteric subjects, thanks to UGC pressure, being concentrated in particular universities. Some might say that such a requirement would be an interference in academic freedom. I would ask: are discriminatory practices freedom and, if so, freedom for whom ? Surely discriminatory practices should more accurately be described as arbitrary power and, therefore, a threat to academic freedom — a threat to academic freedom in itself and also a threat because arbitrary power invites serious intervention.

We should be able to learn a great deal from what has been done in the United States. We should do everything we can to strengthen our own legislation. But we can take action without waiting for legislation. We can draw up lists of women academics seeking promotion, of would-be women academics seeking posts; we could draw the attention of universities advertising posts to the qualities and abilities of these women. It is often claimed that women oppose the promotion of women. Let women show the falsehood of this assertion. In this country posts

12 Confirmed in a letter of 9th March 1973 to the author. This is in agreement with the earlier findings of Ingrid Sommerkorn's PhD thesis

usually have to be advertised and that is one advantage we have which has not previously existed in the United States.

We might also – and this is another subject – develop what are called in the United States women's studies courses (or sometimes feminist studies). Too often scholars (and others) write as though women did not exist. For example, perhaps women would be more interested in sport if as much space and time were given to sportswomen as to sportsmen. Perhaps there would be more women historians if more of history were written about women; when one reads the history books it is only too clear that many men historians are not interested in writing the history which has been made by women. Such courses will do, I think, much to revalue the share that women have borne in human endeavour, and this will as a consequence raise women's estimation of themselves in society both as individuals and as a group.

The Labour Government is committed to strong anti-discrimination legislation.[13] But I wonder how far the real problems of discrimination against women in universities, as in other occupations and professions, have yet even been recognised in Britain. In the universities I do not think they have. I hope this book will be a beginning in making the academic community treat discrimination against women seriously as a problem that requires thorough investigation and effective remedies.

Appendix

A brief summary of the main provisions of the principal American legislation and Executive Orders referred to in the text.

Civil Rights Act of 1964, Title VII prohibits discrimination in employment including promotion, training, pay, fringe benefits etc on grounds of race, colour, religion, national origin or sex.

Investigation and conciliation process undertaken by federal government agency, the Equal Employment Opportunity Commission, on complaint being made.

EEOC has power to require returns from major employers of employees by rank, type of employment, race, sex, etc.

EEOC has considerable powers to conduct educational activities and campaigns.

Suits had to be filed by individuals. Title VII was amended in 1972 so that the EEOC also may sue.

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13 See note on the proposals in the White Paper, "Equality for Women".

Title IX of the Education Amendments of 1972 (Higher Education Act) applies the anti-discrimination provisions on grounds of sex to all public undergraduate institutions and all private and public graduate and vocational schools and colleges, receiving federal grants, loans or other aid.

Executive Order 11246 as amended by Executive Order 11375 applies to all institutions with federal contracts worth $10,000 or more. Prohibits discrimination in employment and all related conditions of service etc., on grounds of race, colour, religion, sex or national origin.

Investigation delegated to Department of Health, Education and Welfare by the Office of Federal Contract Compliance. Record-keeping by employer required.

Sanctions are delay, withdrawal or cancellation of federal contracts.

NOTE ON THE LABOUR GOVERNMENT'S WHITE PAPER The Labour Government's White Paper 'Equality for Women' (Cmnd. 5724) is a clear statement of the Government's determination to provide effective remedies to women who are discriminated against, what those remedies will be and how they will operate.

The proposed legislation will apply to both the maintained and the private sectors of education. Those providing educational services are under a duty:

> "To provide facilities for education to either sex of the like quality, in the like manner and on the like terms in and on which they are provided for members of the other sex."

These provisions will bring all aspects of education within the scope of the legislation.

Cases concerning employment will go to the industrial tribunals. Other complaints relating to education will go, in the case of the private sector including universities, direct to the county courts, but, in the case of the maintained sector, will have to be referred to the education ministers in the first instance. After a defined period, not specified in the White Paper, complainants will be able to take their cases to the county courts.

The Government proposes to set up an Equal Opportunities Commission with a strategic role of investigation, enforcement, research and education of public opinion. It will also have power to intervene in individual cases. Its investigatory role will include both matters within the scope of the legislation and matters outside the legislation which affect the relative position and opportunities of the sexes.

The Equal Opportunities Commission will have power to issue non-discrimination notices which will be enforceable or challengeable in the courts. The EOC will review the operation of the legislation and have power to make recommendations and propose amendments.

Note: The Government has now introduced the legislation in Parliament and at the time of writing the Sex Discrimination Bill has completed its committee stage in the House of Commons.